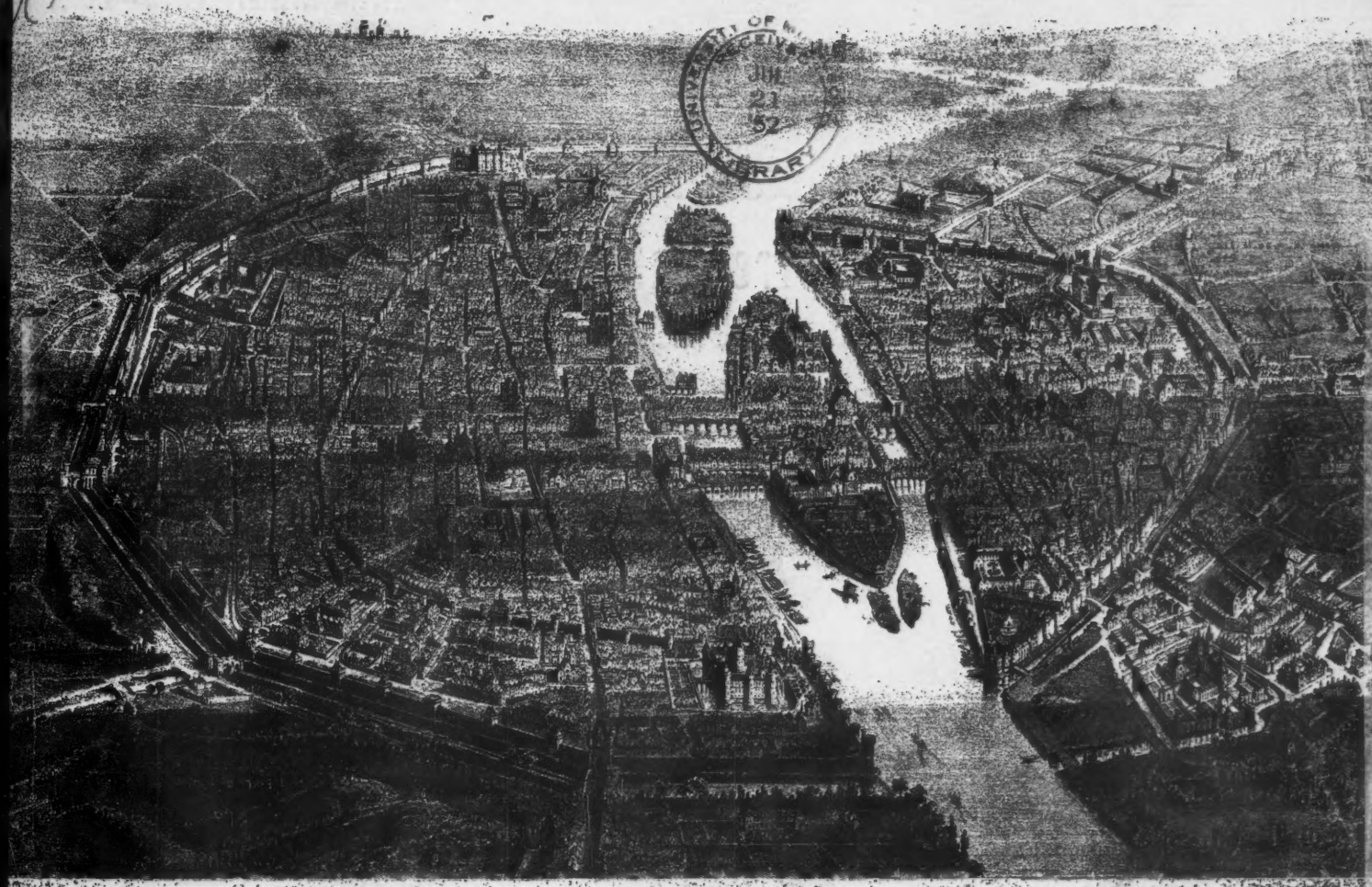

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THE ARCHITECTURAL REVIEW

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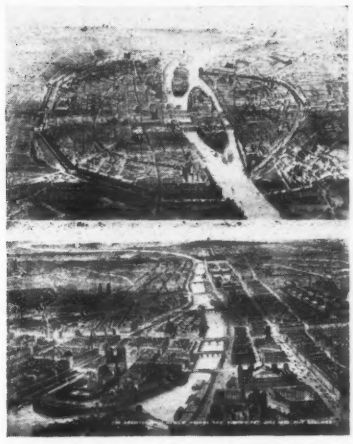

The Cover The Paris of Francois I, seen in the upper engraving on the cover, was a city whose street plan had been determined by the needs of pedestrians and whose streets were on a scale suited to pedestrian traffic; the Haussmannized Paris of 1860, in the lower engraving, was already a city about which the pedestrian found his way at his risk. Most modern cities and towns have suffered in some degree from that attitude of mind which regards the swift circulation and transit of wheeled traffic as the prime object of town-planning—*suffered*, for in fact the unhindered circulation of pedestrians is absolutely necessary for a town's health. How pedestrian circulation may be restored is described by D. Dewar Mills in a feature beginning on page 21.

The Authors *W. G. Holford*, architect and town-planner, born 1907. Trained at Liverpool School of Architecture; Rome Scholar, 1930. Professor of town-planning and civic design first at Liverpool and then (since 1948) at London University. Member, Royal Fine Art Commission; RIBA Council. Author (with Dr. C. H. Holden) of plan for reconstruction of City of London, published 1947, and (with H. Myles Wright) of plan for Cambridge, published 1950. During the war, architect of numerous government factories, hostels, etc. Immediately after war was for a time chief technical officer, Ministry of Town and Country Planning. Most recent building, nuclear physics research laboratory, Liverpool University. At present engaged, with H. Myles Wright, in planning new town of Corby. Has just concluded a term's teaching at the Department of Regional Planning, Harvard University. *R. C. Taylor*, born 1916. Educated at Beaumont and at the Universities of London and Barcelona, taking History of Art as a subject in an otherwise strictly 'utilitarian' curriculum. At present working for the oil industry, but maintains that the unusual combination of business and an æsthetic outlook enables him to appreciate the essential role of economics in art. Is mainly interested in Spanish architecture. Has published a study of Andalucian Baroque in the Art Bulletin and is now engaged on a survey of Spanish Mannerist architecture. *D. Dex Harrison*, architect, partner in firm of Harrison & Seel. Won competition for Exhibition Hall, Princes Street, Edinburgh, in 1939, and for LPTB kerbside shelter. Built schools for the Hertfordshire and West Riding County Councils, housing and industrial work. Chief Architect for the Festival Pleasure Gardens, Battersea. Published work includes *An Introduction to Standards in Building*; and *Building Science* (edited for the Architectural Science Board of the RIBA). Member of the RIBA Practice and Competitions Committees.

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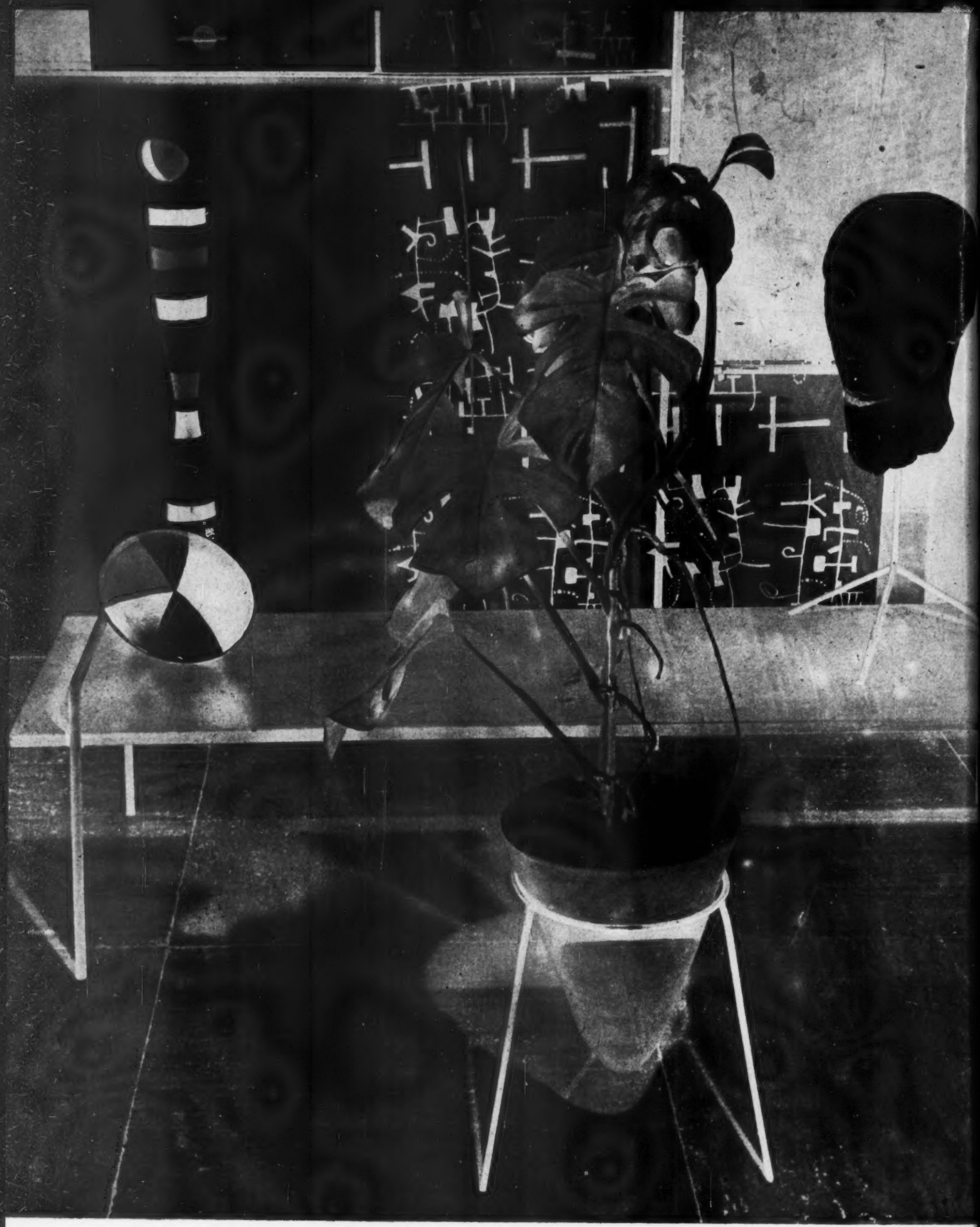


The hallucinatory air of this still-life of designs by Terence Conran—it includes a table, a pot-holder, a cupboard shelf and a hand-printed wallpaper—stresses the qualities of illusion and transparency which distinguish his work, as well as his breakaway from the craftsmanship tradition in furniture-making. Its potentialities for the creation of indoor landscapes are further shown in the illustrations (pages 55-57) to a note on Conran's recent exhibition at Simpson's where this negative photograph was taken by Nigel Henderson.

William Holford

GROPIUS 1952

In June 1953 Walter Gropius retires from his position as Professor of Architecture at Harvard University. In this essay Professor Holford takes the opportunity of the publication in Italy last year of a book on Gropius to assess his continuing contribution to architecture as he approaches his retirement from teaching.

This psychological and interpretative study of Walter Gropius, the man, the teacher and the architect, is an unusually objective one.* It is so detached and so analytical that it is difficult to realize when reading it that Gropius is still teaching his special class at Harvard, that he has but recently completed a modern group of buildings in the collegiate tradition, and that he is active in projects for rebuilding a sector of Chicago, for producing factory-made houses, and for founding new neighbourhoods composed of young American families.

These facts speak volumes for the artistic integrity of the man who, a quarter of a century ago, described his architectural faith in these words:

> 'We wish to see an architecture arise, clean, clear and luminous in the interpretation of its own internal laws and structure; without artifice and without falsehood; an architecture that will take for its own the world of the machine, the radio and the automobile; that will show simply and solely through the tension and balance of its constituent masses what it is trying to do and the sensitivity with which it is doing it; and that rejects absolutely whatever may hide or detract from the pure form of the building.'

That faith has deepened with the years, and become less assertive, but it has never been set aside or compromised. Gropius' interest has shifted a little from the machine to society, from industrial art to social art; but he has never tried to escape from the fact that we are an industrial society. Where, twenty-five years ago, mechanization was regarded as a hope, it must now sometimes be recognized as a danger; but Gropius at least has never pretended that it can be ignored. The house which he built for himself at Lincoln, Massachusetts, in 1938, and where he still lives, is near Walden Pond, the place to which Henry Thoreau retired just over a century ago and wrote his journal of life in the woods. The countryside of Massachusetts has had its influence on Gropius also. He takes

* Walter Gropius e la Bauhaus by G. C. Argan. Giulio Einaudi, Turin 1951.

an abiding interest in the trees and shrubs and flowers of his wild garden, and particularly in its varied bird-life. He knows the history of this New England territory, and of its transcendentalist philosophers—Emerson, and Hawthorne and Margaret Fuller. And he recognizes the traditions that lie behind its farmhouses and villages.

Yet, unlike Thoreau's cabin, solitude is not a feature of Gropius' house, nor of his life. In its way the house is the dwelling of a pioneer, but it is also intensely urban, like a forward reconnaissance post in constant touch with headquarters. Guests are many and servants non-existent, so there is a car in the garage, a telephone in the study, and a dish-washing machine in the kitchen. Somehow, in an adopted country, and using an adopted language, Gropius is able—because of his evident good faith—to communicate the practical truths of his art and to teach others to perceive it.

Because he avoids the sensational in his work it is sometimes said of Gropius today that he is doing nothing new. It is true that battles which were critical for modern architecture have been fought and won, and are now over; but, as Mr. Argan points out, it is far too early to make rash statements. This book recalls some of the early experiments at the Bauhaus and elsewhere, in which an objective critic must recognize something of fundamental and permanent value. Gropius' 'prefab,' for example, of 1927 may not have been considered at that time as more than one link in a chain of development. But now, looking back, it can be seen that it has the whole essential virtue of a small factory-made house; it functions perfectly, it is economical and simple, and it is neither awkward nor pretentious. In fact the design has not been superseded. In another twenty years the same may be said of *Aluminium City*, the houses which he built for war-workers at New Kensington, in collaboration with Marcel Breuer. Far from being 'nothing new' they may be 'always new.' For, as the author of this book points out, the most recent conviction which has formed itself in Gropius' mind is the idea of an art that *takes command* over mechanization, turning productivity into creativity. Anything that is created with love and passion and energy, and is thereafter carried into execution with reasonable efficiency, has something in it that endures. It is like a continuous emanation that may be picked up generations later and be recognized and interpreted afresh.

One curious phrase in Mr. Argan's book calls for comment. 'Gropius' faith,' he says, 'in a better future of the world, hides a profound scepticism—*uno scetticismo profondo, una lucida disperazione.*' Is this really so? Or is it an exaggeration produced by the sheer exhilaration of Italian words; a grain of truth suggesting a world of psychological imagery? It is difficult to imagine an artist of the calibre of Gropius, and a teacher with such a large following, denying the truth of his revelation. It is true that there is in his temperament an element of sadness, the sadness that all artists know who are also reformers. For humanity is slow to recognize the link between philosophy and three-dimensional design; and the designer so often comes to regard his opportunities as too few and too late. Yet who could talk of Gropius in Switzerland or Germany or Chicago or at a CIAM Congress, or walk through Harvard Yard or among the houses of his friends and students on Six Moon Hill, and still maintain that he is a sceptic at heart?

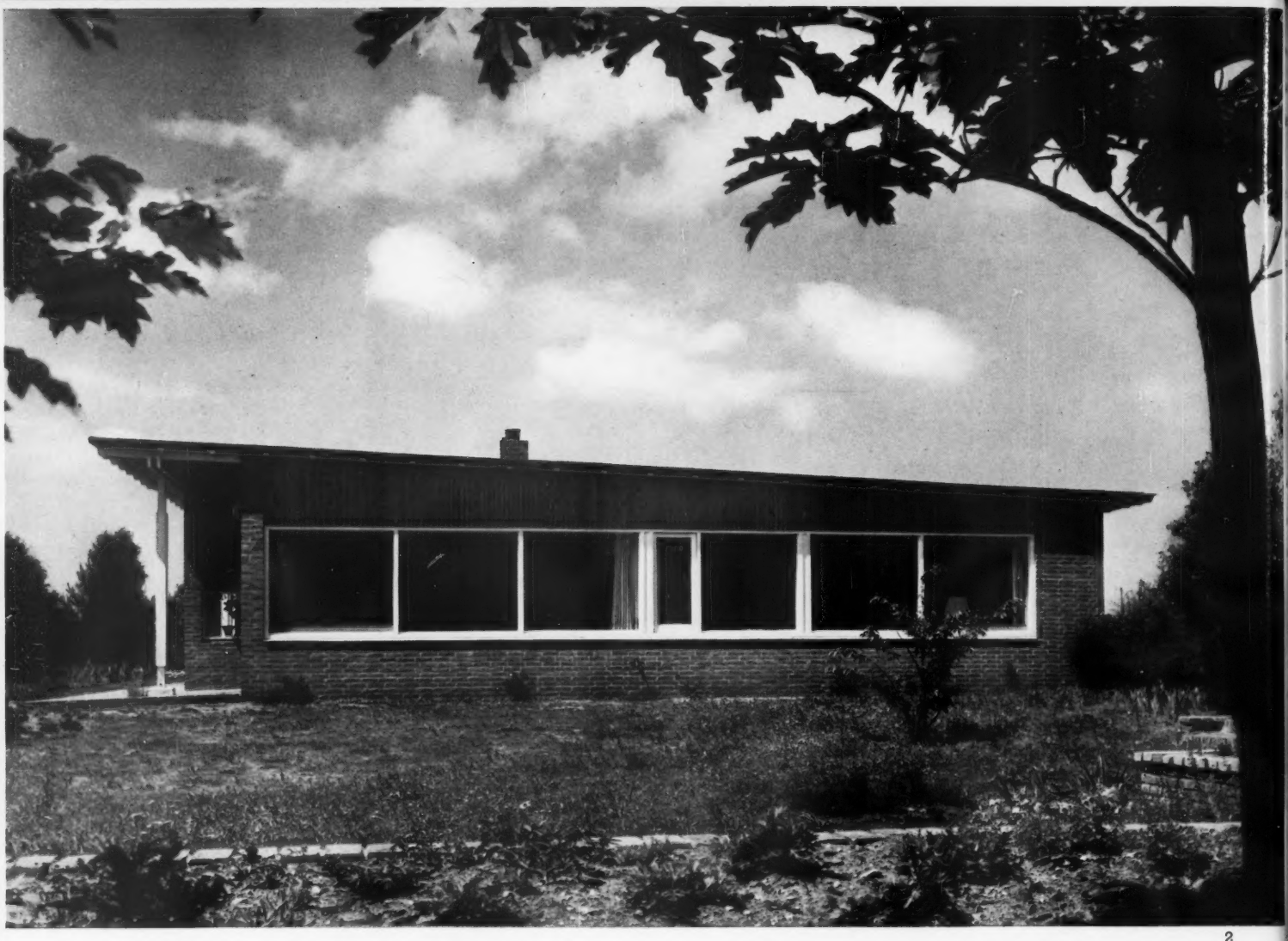
But if it *is* so, and if his philosophy is in fact the result of a 'lucid despair' of the world's future, then there must be a purifying element in that scepticism which, like fire and the tides, renews at the same time as it consumes.

HOUSE NEAR APELDOORN HOLLAND

HEIN SALOMONSON: ARCHITECT

The main terrace looking towards the living room. There is also access from the kitchen to the terrace which lies outside the photograph to the left.

1



2

The east elevation with guest bedroom on the right and the owner's bedroom on the left. Window frames are painted white and above them running their full length is a panel of vertical boarding. Below is an aerial photograph of the house.

3

The house is situated about 12 miles from Apeldoorn in typical heath country among mixed pines and birches. Foundations and cellar are of chalk and sand bricks but the house itself is constructed with the traditional Dutch double-brick walls. Recessed panels of vertical boarding have been introduced on each façade for textural contrast. The roof consists of slabs of a two-inch proprietary composition board of pressed fibre and plastic which are covered with bituminous felt and are supported on timber rafters. The hollow-brick floor is reinforced with steel and is paved with sand-coloured tiles. Windows are oak framed and interior walls are plastered leaving a rough finish. The house has central heating, electricity, but no gas. An electric water pump in the garden is buried to deaden its sound. The garden was laid out by Mien Ruys.

2

HOUSE NEAR APELDOORN HOLLAND

4, the rear elevation facing south. In the centre are the windows of the living room, seen in 5, and, on the far right, is the set-back terrace seen in 6, from the south-west. The plant window, set in a panel of vertical boarding, faces west.

4

5

6

6

7

In Spain the Rococo, for reasons discussed by R. C. Taylor in an article beginning on page 9, was never adopted as an integral style unifying all the aspects of a building—plan, ornament, furniture and so on—into a consistent scheme. The Valencia palace of the Marqués de Dos Aguas, of which the front and one of the angle turrets are shown in these photographs, illustrates this truth; for when this front was added to the already existing building by Hipolito Rovira Brocandell in 1740-44 nothing was done to the interior—although the Marqués was one of the richest men of his day. With its stuccowork by Luis Domingo on the turrets and main entrance executed by Ignacio Vergara this front is the most elaborate secular example of Rococo in Spain; when covered with paintings by Rovira, as it formerly was, the effect must have been even more overwhelming.

R. C. Taylor

The accession of the Bourbon king, Philip V, to the throne of Spain in 1700 might have led to a widespread diffusion of French taste throughout the country. But the first dozen years of his reign were occupied with fighting the War of Succession, so that there was little occasion or money for building. Then, by the time of the Peace of Utrecht (1713), the national style, developed by architects such as the Churrigueras, Hurtado and Balbás, was too well entrenched to be ousted. Where the Rococo did gain a foothold it assumed a special character for reasons given in this survey of a little known subject.

ROCOCO IN SPAIN

A NEGLECTED ASPECT OF EIGHTEENTH CENTURY ART

In spite of his origin, the influence of contemporary French developments on Philip V's own buildings was surprisingly small. Such manifestations as there were belonged to the earlier years of his reign. They consisted mainly of minor embellishments to the Alcazar at Madrid, all of which perished in the great fire of 1734. Thus in 1712 the Princesse des Ursins, the royal favourite, wrote to De Cotte, chief architect of the French king, for advice on designs for the 'Cabinet des Furies' and for chimney-pieces for the queen's apartments. In the following year he reported that the finishing touches were being put to 'la pièce octagonale' for Madrid which included carvings by Dugoullons and mantels and bronzes by Vassé. Shortly afterwards Philip made a payment to De Cotte of 1,800 livres for the services of a number of draughtsmen. In addition, he was constantly receiving deliveries of furniture and ornaments from the best 'ébénistes' and 'ciseleurs' of Paris.

By contrast, no major architectural commissions during the course of Philip's long reign went to Frenchmen, even though quite a number of French architects and engineers occupied important posts under the crown. When Philip decided to build a palace at La Granja (1719-1723), its design was entrusted to a German called Teodoro Ardemans. Mostly, however, he employed the services of Italians like Juvara, Sacchetti and Bonavia. The reason for this is not far to seek. After the death of his first wife, Marie Louise of Savoy, Philip in 1714 married the formidable Elizabeth Farnese of Parma and fell completely under her influence. Her first act was to procure the expulsion of the Princesse des Ursins. Then, particularly after the death of Louis XIV, she sought to eclipse French influence by promoting the advancement of Italians. Alberoni who had engineered the match became virtual prime minister and Spain's foreign policy was directed towards the acquisition of Italian duchies for the king's sons by his second wife.

French taste, then, exerted no very great influence on the official architecture of the time in Spain. Frenchmen were only employed in fields where their superiority was unchallenged, such as the laying out of gardens, the designing of fountains and the execution of garden statuary. No architects or decorators of the calibre of Cuvilliés who introduced the Rococo into Germany, or Pineau who took it to Russia were invited to Spain. Paradoxically enough, it was left to the decorators of the native Spanish school to discover the Rococo. Their practice, however, was based not on any first-hand acquaintance with French models so much as on engravings and books of ornament. Spanish Rococo, therefore, bears no very close relation to its French counterpart. What in France is all grace, restraint and fluidity acquires on transplantation to Spain a more nervous and voluble quality, by no means free from an element of coarseness. In France it was mainly a secular style, confined to the decoration of interiors, whereas in Spain not only was it employed on exteriors as well, but was much favoured for use in churches, particularly on altarpieces. In Spain, too, the 'chinoiserie' element is almost completely absent. Examples such as the Gasparini salon in the royal palace and the porcelain room at Aranjuez are hardly valid, being the work of foreigners. The painted decoration on the dome of the Sagrario in the church of Santo Domingo at Orihuela is an authentically Spanish example, but it is of little merit compared with European examples.

In Spain the Rococo was never adopted as an integral style, that is one wherein all the various constituents such as ground-plans, surface ornament, painting, furniture and so forth form part of a uniform and consistent scheme. It tended to become little more than an addition, albeit a valuable one, to the decorator's stock-in-trade of ornament. In no way is it an autonomous style, but partakes of the general development of Spanish eighteenth century Baroque. So Rococo elements become intermingled with others of purely native origin. One of the most singular examples

of this process is to be seen in the sacristy of the new cathedral of Salamanca where Gothic revival and Rococo have been blended to form an original and striking composition. Such a startling juxtaposition of different styles is admittedly exceptional, but it illustrates the Spanish tendency to divorce the purely decorative side of the Rococo from its underlying implications.

One of the results of this dichotomy was that the Rococo in Spain never underwent any consistent stylistic development of its own, as in France and Germany. Moreover, like so much of Spanish Baroque it was a piecemeal affair in the sense of being mainly concerned with the enrichment of structures already in existence. In spite of her vast colonial empire, Spain never disposed of the immense funds for building available, for instance, in contemporary Portugal where almost every small village contains at least one church of this period.

The eighteenth century witnessed a growing reaction against the isolation and aloofness in which Spain under the later Hapsburgs had sought refuge from the depressing reality of her national decay. Because of this prejudice against foreign innovations, Spain now found herself far behind other nations in standards of progress and refinement. This is particularly evident in the field of the domestic crafts. The manufacture, for instance, of household furniture, silver, glassware, tapestries and clocks never attained the profusion and excellence it did elsewhere. With few exceptions the early Bourbons had to import what they required. There was some attempt at remedying this situation, but it was not until the reign of Charles III (1759-1788) that systematic efforts were made to promote industries of this kind in Spain. The king himself was particularly keen to revive the glories of Hispanic silverwork and with this object founded a school in Madrid. In this connection, too, there is an interesting record of the king compelling the silversmiths' guild at Córdoba to accept a foreigner into their ranks, a certain Esteban Duar (Stephen Dewar?), described as a native of Portsmouth. In the royal decree the guild's 'closed shop' tactics are stigmatized as 'contrary to the Catholic religion . . . and the enlightenment of the times,' showing that restrictive practices and hostility to foreigners on the part of unions are no modern innovation.

On the whole foreign visitors to eighteenth century Spain found little to commend. Saint-Simon, for instance, contrasted the monotonous existence of the aristocracy with the animation of the French court, remarking on their antiquated customs and the lack of comfort generally. Not that the Spanish Bourbons themselves did much to enliven things. Philip V and his successor, Ferdinand VI, were both hypochondriacs, cheered only by the singing of the 'castrato' Farinelli, while Charles III whom the family insanity seems to have afflicted somewhat differently, sought relief, like Louis XVI, in a relentless devotion to the chase.

[*cont. on page* 15

The first major monument of Spanish Rococo is the west front of the cathedral of Murcia, **1**. In 1733 the great square before the cathedral was inundated by floods, which so weakened the existing façade that the chapter finally decided to replace it by another. They therefore sent for a certain Jaime Bort y Meliá, an architect then working in Cuenca, and asked him to submit designs. The result is, perhaps, the finest church front in the whole history of the style. Among the craftsmen employed was a certain Antoine Dupart, a Fleming, who had worked at Versailles. His influence is evident in the Gallic elegance of much of the statuary. Of Bort's antecedents little is known, though he is said to have been of Dutch extraction. This may well be, so distinct is his style from that of his contemporaries. It has an air of cosmopolitanism and sophistication which is distinctly un-Spanish.

In Murcia and its environs the influence of Bort predominates everywhere. Under his direction a type of retable was evolved, notably at La Merced and San Miguel, which bears little relation to those of his contemporaries. Elsewhere in Spain at this time architects were abandoning all pretence at any kind of architectonic organization. Instead, as in the retable of Nuestra Señora del Rosario in Granada, they relied for their effect on purely sculptural and plastic values. Where the Early Baroque decorators used ornament to emphasize the architectural members, those of the High Baroque sought rather to dissolve them into their background. Bort, on the other hand, resolutely continued to uphold the predominance of structure. He employs the orthodox Orders instead of the more usual Solomonic columns or 'estípites.'* Again, he preferred the convex and concave forms of the earlier phase at a time when the prevailing trend was in the direction of flat expanses of intensive surface decoration.

In Spain the Rococo never underwent any kind of stylistic development of its own as it did in France, but partakes of the general development of Spanish Baroque. This retable, **2**, which is to be found in the church of La Merced, illustrates the same survival of Early Baroque tendencies as does the façade of the cathedral. It is not known for certain who the author was, though its similarity to the façade of the cathedral and the finely executed detail suggest Bort himself.

Though clearly conceived under Bort's influence, the main retable in the church of Nuestra Señora del Rosario at Lorca, **3**, represents a decided shift towards Spanish contemporary practice. This work, begun in 1749 by José Ganga Ripoll,

* An 'estípite' is a support consisting of a base surmounted by a shaft like an inverted obelisk. It narrows at the neck and is surmounted by a capital. The 'estípite' was the characteristic architectural member of the High Baroque as, in contrast to the uniform spiralling of the Solomonic column, it lent itself to a prismatic treatment.

1

2

3

displays Bort's characteristic concave organization and the orthodox columns surmounted by fragments of segmental pediment. Here, however, the 'rocaille' elements are more in evidence, though they remain strictly regular and display none of the asymmetry associated with the 'genre pittoresque.' But the main departure is to be seen in the treatment of the vaulting which consists of a large expanse of surface ornamentation, typical of the High Baroque.

Following the success of Pedro de Rivera's Gothic Revival tower for Salamanca cathedral, the chapter decided on a sacristy in the same style, **4**. The design was entrusted to Manuel de Lara y Churriguera, the cathedral architect (1751). He incorporated Rococo motifs into the decoration, notably on the bases of the supports and the intrados of the arched recesses. A more pronounced Rococo emphasis is provided by the mirrors surmounting the vestment cases. This work affords an extreme example of the tendency to treat the Rococo merely as a system of decoration divorced from its structural implications.

4

5

Though Chinese influences reaching Spain by way of the Philippines are fairly common in the ceramics and textiles of the period, in architecture the 'chinoiserie' element is almost wholly absent. Accordingly this decoration on the dome of the Sagrario of Santo Domingo at Orihuela, **5**, has a rarity value out of all proportion to its intrinsic merit.

6

A Rococo 'salad of angels,' **6**, this retable in the Dominican church in Granada illustrates the transition from Early Baroque with its emphasis on structural movement to the High Baroque which was more interested in the sculptural and plastic quality of the decorative overlay. It was carved by Blas Antonio Moreno from 1726 to 1756 for the 'cofradia' or confraternity of Our Lady of the Rosary. The designer was almost certainly the great Sevillan artist, Pedro Duque Cornejo, official sculptor to the Queen, Elizabeth Farnese.

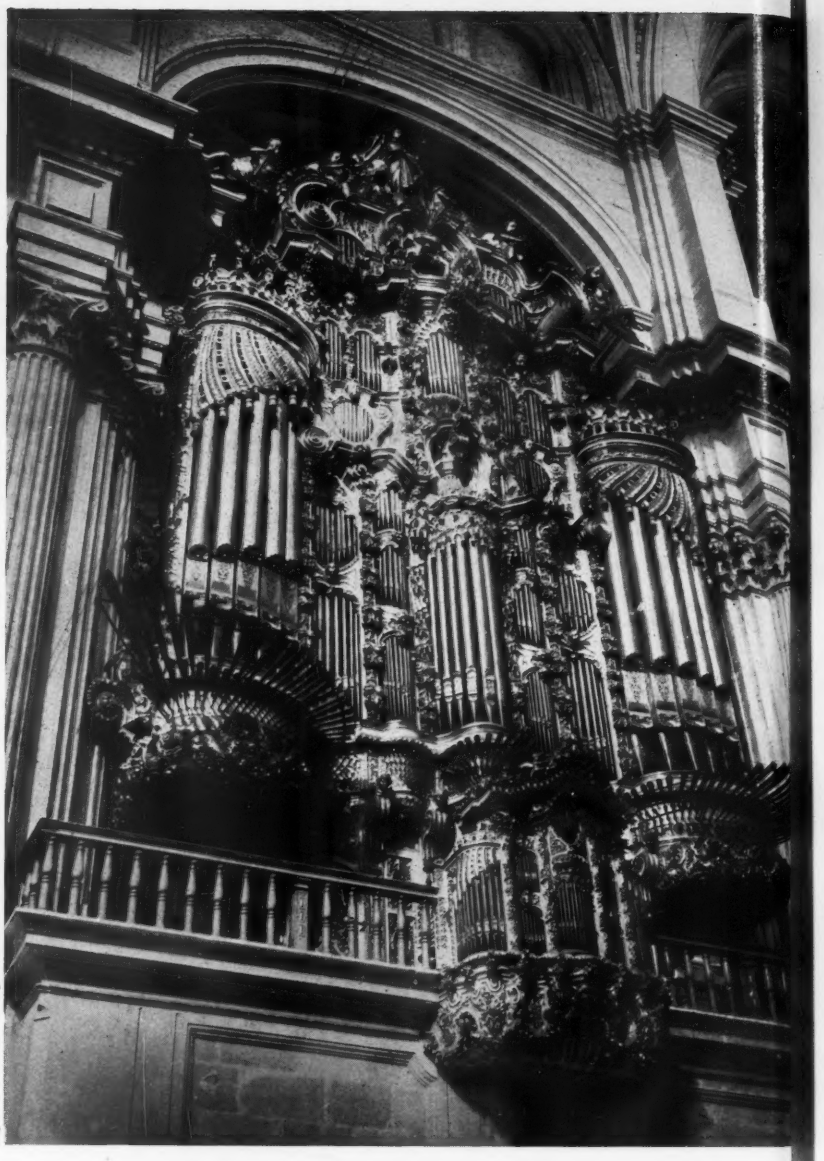
The two mighty organ casings of the cathedral of Granada, coloured in white and gold, of which one is shown in **7**, are the finest examples of their kind in Spain. They were executed between 1744 and 1749 by Leonardo Fernández Dávila, the most prominent 'maestro de hacer órganos' of his time, who was also responsible in 1756 for the organs in Philip V's new palace at Madrid and in the church of Las Salesas Reales.

These reliefs, **8**, in the church of San Andrés at Valencia, of which this is one example, were executed by Luis Domingo. They were probably designed by Hipólito Rovira (designer of the Palacio del Marqués de Dos Aguas, page 8). This kind of hyperfluid decoration on a flat ground is typical of Spanish High Baroque.

9

By contrast, the Rococo in Catalonia is all delicacy and restraint due, perhaps, to its close proximity to France. The Palacio de la Virreina or Palace of the Vicereine, **9**, in Barcelona is a striking example. It was built between 1773 and 1776 for the wife of Manuel Amat, Viceroy of Peru, whose love affair with the actress, La Perricholi, is the theme of Thornton Wilder's

7



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10

11

12

'The Bridge of San Luis Rey.' This palace is clearly a work of transition, illustrating the advent of neo-classicism. Though its lines betray the influence of Gabriel, it still maintains a good deal of Rococo detail, such as the carving about the windows and the delicate wrought-iron balconies.

No region in Spain adopted the Rococo so wholeheartedly as western Andalucia, particularly Seville. This example in the Sagrario of San Vicente, **10**, is by Juan Varela (*c.* 1760). The flat character of the structure, mitigated only by the great central niche, proclaims it as belonging to the middle period of Spanish Baroque. A curious contrast is afforded between the sophisticated Rococo decoration and the primitive flavour of the medallion representing the Last Supper.

The works of Cayetano Acosta* in the church of El Salvador at Seville illustrate the transition from High to Late Baroque. This final phase sees a return to certain characteristics of the first. Thus, in the *retablo mayor*, **11**, though the complexity and overcrowding of the middle period are still much in evidence, there is a renewed interest in structural movement. Again, in the proscenium retable of the Sagrario, **12**, he abandoned the prismatic treatment of the 'estípite,' all broken planes and fluttering edges, characteristic of the High Baroque. Instead, we find a firmly delineated support consisting of two asymmetrical 'rocaille' motifs. Though the 'estípite' outline is retained, the result is much closer to the undulation of the Solomonic column, the favourite architectural member of the Early Baroque.

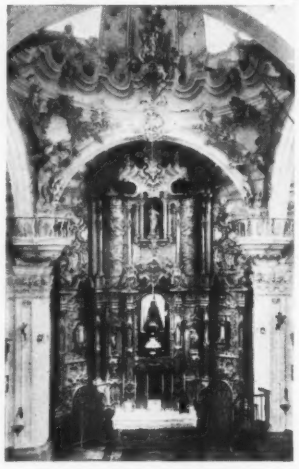
The gem of the Rococo in Jerez is the choirstalls in the church of La Colegiata, **13**. Dating from about 1765 they remain anonymous, but they are the most important example of Rococo stalls in Spain. In contrast to much late work of this kind, the rocaille element has been tempered by the discreet use of straight columns and rectangular panels, so that it only appears at all prominently in the asymmetrical capping over each stall.

13

*Caetano Alberto da Costa, more usually known as Cayetano Acosta, was not of Spanish origin. He was born in Portugal about 1710, though nothing is yet known of his early career. He worked on the famous Tobacco Factory, immortalized in *Carmen*, for which he supplied the winged effigy of Fame over the entrance and the Rococo fountain in the main courtyard.

Nuestra Señora de la Merced at Priego, **14**, is one of the finest of the numerous churches which the hitherto unknown architect, Francisco Xavier Pedraxas, built in this small and out-of-the-way town, midway between Córdoba and Granada. His work marks the culmination of the Late Baroque, illustrated here by the undulating cornices, **15**, the 'mouvementé' retable and the discreet use of finely executed ornament. Pedraxas's masterpiece, the Sagrario of the parish church of Priego, **16**, was begun in 1771. The architect transformed the original Sagrario, a small and cramped rectangular structure, into an antechamber to the main chapel. This antechamber is lavishly decorated with plasterwork in high relief, but lighted only by two small windows in the cupola. By this means the spectator is made to experience a sensation of oppression, as if the Saints in their niches and the elaborate reliefs were closing in upon him. This sensation is reinforced by the angularity of the walls, so that he feels compelled to escape into the brilliantly illuminated circular chapel beyond. In the cupola of the antechamber, **17**, the architect made use of subdued lighting and crowded ornament to impart to it an effect of solidity and weight in contrast to the lightness and airiness of the main cupola. Yet, in accordance with Late Baroque practice the decoration is carefully controlled, so that the structural pattern emerges quite clearly through it. This church has unquestionably the most entrancing Rococo interior in Spain, being the only one, perhaps, which can really compete with the best of this style elsewhere. Also it must have been one of the very last monuments in the old tradition to be completed before the total victory of neo-classicism.

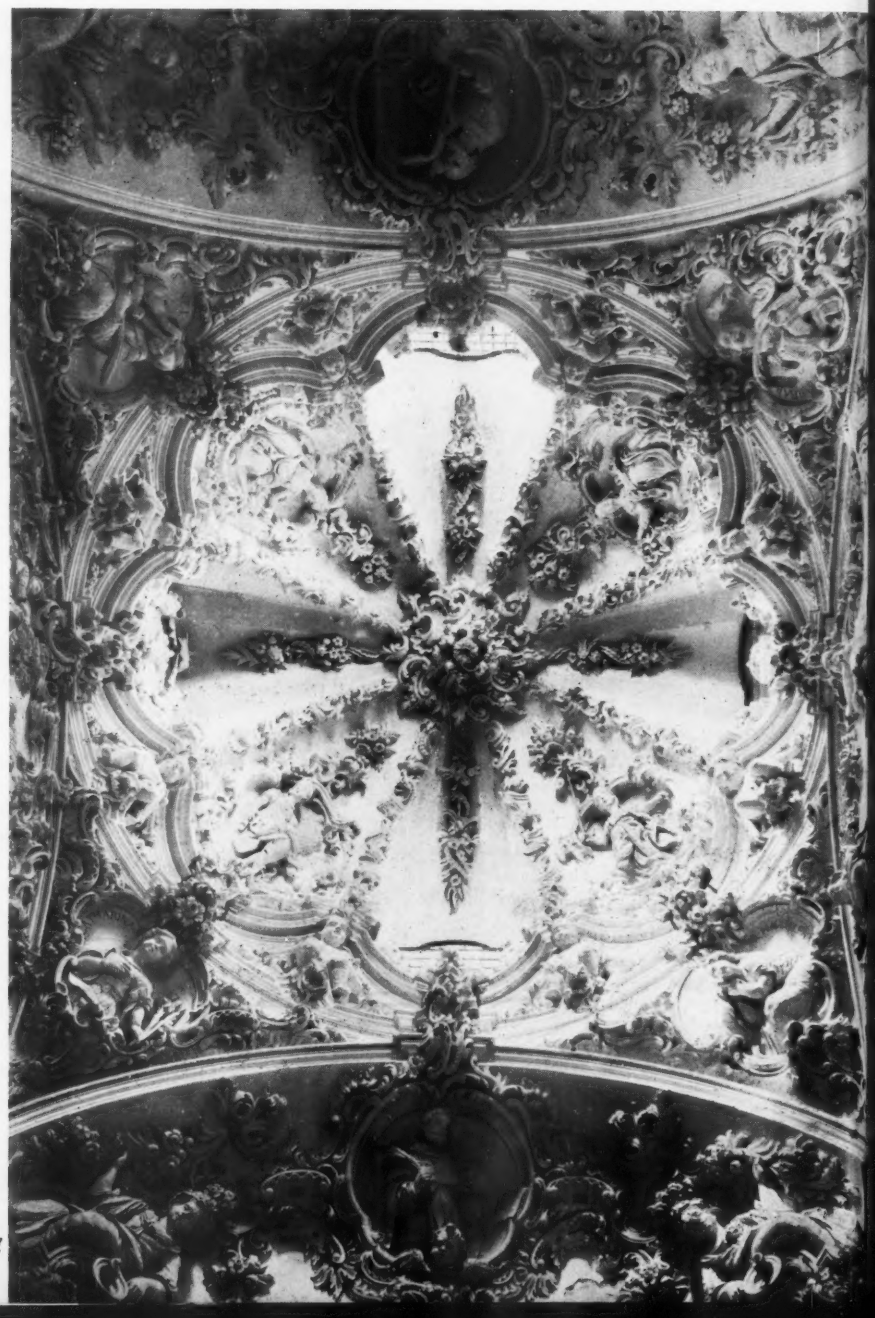
14



16

Although by this time the style in Spain was all but extinct, in Mexico it continued to flourish until the very turn of the century. There survive in the centre of the country a remarkable group of late churches decorated in a most individual kind of 'rocaille.' They belong to the Augustinian convent at Salamanca and to those of Santa Rosa and Santa Clara in Querétaro. Though among the last examples in the long history of the Rococo, they belong rather to the High Baroque with its passion for large expanses of hyperfluid ornament than to the Late Baroque. Characteristic

15



17

18

are the immense carved screens interposed between the 'clausura' and the public part of the church. These screens owe nothing to Spanish precedent. They are entirely original creations by Mexican decorators. Here at Santa Rosa, 19, the central screen incorporates two wrought-iron grilles at different levels divided by a number of paintings in 'rocaille' frames. Above the upper grille the screen stretches upwards into the vault like an immense fan. At Santa Clara the tracery is bolder yet more intricate, reminiscent of the elaborate 'lacerías' of the Moors. Much of the ornamentation in these churches is of a massive and almost cyclopean character. Also it is strictly symmetrical, which was unusual at this time. The retable of the upper choir at Santa Clara (1792) was by the 'maestro' Ximénez who was probably Vicente Ximénez, an Indian 'cacique' born in 1741. The point about the retable in the nave, 18, is that it is in this same style, so that this version of the Rococo may well be an Indian contribution.

19

cont. from page 10]

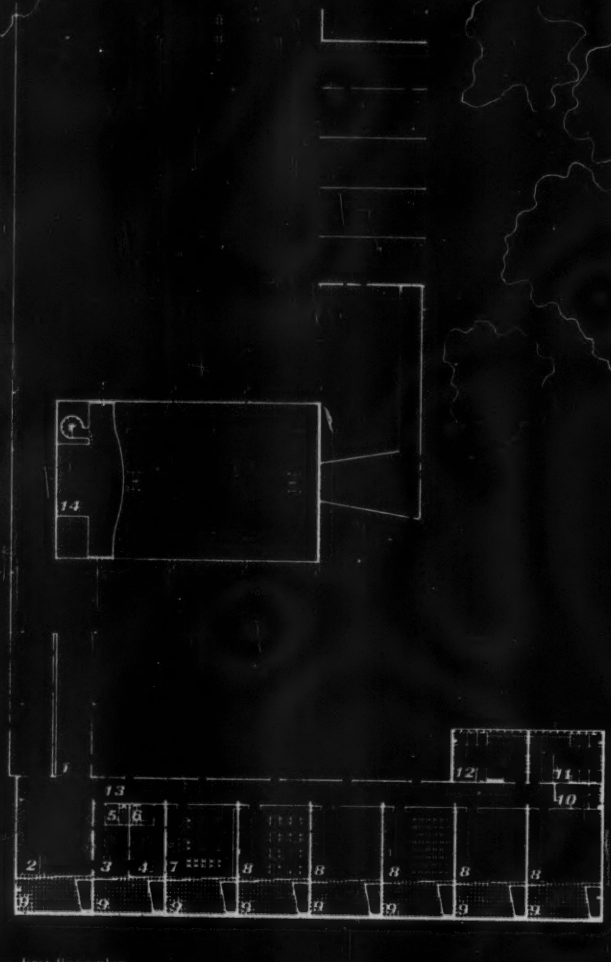
It is scarcely surprising under the circumstances that the idea of domestic comfort, that intimate feeling of being 'chez-soi,' which was one of the great discoveries of the Rococo, was little cultivated in Spain, either by the aristocracy or the middle classes. Social relations continued to be governed by an inflexible code of etiquette and ceremonial. This emphasis on externals, matched characteristically enough by the contemporary Spanish passion for costly and extravagant attire, has its parallel in the domestic architecture of the period. It will be found that generally all the care and attention, all the pomp and show have been relegated to the outside. Within, the apartments display an unrelieved austerity reminiscent of the age of Mannerism. Thus, when the Marqués de Dos Aguas renovated his residence in Valencia (1740-1744), the alterations were confined solely to the exterior. Lack of funds was certainly not the reason here, for his estates are reputed to have yielded the equivalent of an ounce of gold at every chime of the clock.

In contrast to this dearth of activity in the field of the domestic arts the number of commissions executed for the Church was enormous. Though subjected throughout the century to the ceaseless attacks of the 'cæsarists' and the partisans of 'enlightenment,' culminating in the expulsion of the Jesuits in 1767, the Church continued to enjoy a predominant influence in the life of the country. Her patronage was the mainstay of the arts at this period and without it they would indeed have fared ill. Yet nowhere else were the Tridentine precepts governing religious art still so rigorously adhered to as in Spain. This helps to explain the curious persistence of Mannerist influences well into the eighteenth century, as evidenced by the inflexible immobility of so many of the ground-plans of the period. It also explains why Spanish Rococo, in contrast to the French and German versions, is so devoid of humour. We know, for example, of the disapproval aroused by Tiepolo's Rococo canvases for the convent of San Pascual at Aranjuez. At the instance of the king's confessor, Fray Joaquín de Eleta, they were replaced by more acceptable, if duller, versions by Anton Rafael Mengs, then director of the Academy of San Fernando, and some of his pupils.

The Academy, founded in 1752, had as its main object the restoration of the principles of 'good taste' in the arts, which came to mean, in fact, the tenets of neo-classicism. Fortunately, however, the Academy and its fulminations were not taken very seriously outside Madrid and the orbit of the court. Almost to the very end of the century the regions displayed a sturdy independence, not only in resisting the Academy but also in maintaining their own separate artistic individuality. Regional differences, therefore, are very pronounced, so that it is comparatively simple to distinguish the Baroque buildings of Galicia from those of Valencia, or the style of Murcia from that of Seville.

GYMNASIUM AND PRIMARY SCHOOL AT RIO

ground floor plan



first floor plan

first floor key

1. ramp, 2. [illegible], 3, 4. administration, 5. [illegible], library, 6. classrooms, 7. terrace, 10. teachers' lavatories, 11. girls' lavatories, 12. boys' lavatories, 13. passage, 14. gymnasium

ground floor key

1. covered playground, 2. girls' lavatories, 3. boys' lavatories, 4. staff lavatories, 5. store, 6. [illegible], 7. canteen, 8. ramp, [illegible], 10. gymnasium, 11. [illegible] dressing room, 12. [illegible] dressing room, 13. [illegible] pool, 14. playground

1, detail of mosaic panel by Burle Marx.

PEDREGULHO NEIGHBOURHOOD, RIO

GYMNASIUM AND PRIMARY SCHOOL

AFFONSO REIDY: ARCHITECT

2

2, aerial view of the school, with the gymnasium on the right. 3, the end wall of the gymnasium faced with azuleijos to a design by Candido Portinari.

The 12-acre Pedregulho neighbourhood unit at present under construction in a suburb of Rio de Janeiro, Brazil, is the first instalment of an extensive programme on the part of the Rio authorities to provide housing accommodation for the lower-paid municipal workers near their work. Besides flats the unit includes a community centre and health centre, a sports centre with swimming pool, gymnasium and changing rooms, a primary school, co-

3

4

On the left the gymnasium: on the right the primary school. Behind can be seen under construction the reinforced concrete frame of the main block of flats in the Pedregulho neighbourhood, known as the 'cobra'.

5

The terraces of the primary school which structurally are continuations of the classrooms. The open ground floor below the school forms a covered playground. 6, one of the classrooms showing the fully glazed window-wall which opens on to the open-air teaching space.

6

operative shops and laundry. The first blocks of flats, the shops, laundry and health centre have already been illustrated in the REVIEW.[1]

The primary school and gymnasium are now completed. The school, which stands on pilotis, is approached by ramp, providing a covered playground below and space for a canteen. Accommodation is provided for 200 pupils with classes planned for a maximum of 40. These face south, away from the sun, and are extended to form a terrace where lessons can be held on especially hot days. The sliding window walls open three-quarters of their length and their upper part can be pivoted open to provide cross ventilation in conjunction with windows in the opposite walls which give on to the open corridor. This access passage, which in itself serves to protect the classrooms from the northern exposure, has a sun screen of hollow ceramic tiles, giving a honeycomb effect with richly textured light and shade[2] and allowing maximum ventilation.

[1]See AR, October, 1950.

[2]For variants on this effect see Flats at Rio de Janeiro, AR, August, 1950.

8 7

7, the entrance ramp leading to the school hall. To the left is the honeycomb wall which runs along the side of the classroom corridor, and which is seen from inside in 8.

Construction of school and gymnasium is of reinforced concrete, the end walls of each being given special decorative treatment. The end wall of the school is composed of hollow-tile blocks, while the end wall of the gymnasium is faced with azuleijos[3] to a design of Portinari.

[3]See Rebirth of the Azuleijo, by Joaquim Cardoso, AR, December, 1946, and The Ancestry of the Azuleijo, AR, October, 1947.

1

2

3

The eternal menace of the motor car destroys for the pedestrian all appreciation of his surroundings; and the planner in his preoccupation with the needs of the wheel contributes to the whittling down of all variety of character and mood in the townscape. A means of escape into the interior is wanted. The familiar line of bollards in 1, *opposite (Chippenham, Wilts.) is an invitation to escape. How often in our towns is it frustrated by a blank wall at the next turning. We need, in fact, a planned pedestrian network just as badly as a planned highway network.* 2, *at Ledbury in Herefordshire, shows the remains of one leading to the Parish Church. The neat black and white posts provide room for service by errand boy but not by van or lorry. In Constantine, Algeria,* 3, *a whole town is planned for the pedestrian. Though it is hardly an example for the contemporary planner to follow, at least it is a reminder that there can be worse things than lack of plumbing—the sacrifice of most urban joys to the internal combustion engine, for instance.*

D. Dewar Mills

PEDESTRIAN NETWORK

Along the main traffic arteries the motor vehicle, whose irretrievable domains these are, sets a hectic and sightless tempo emulated by the pedestrian in his rush for cover and escape. Keep to the narrow ribbon of safety. Keep pace with the stream. Take your time and be jostled. Stand and stare at your peril.

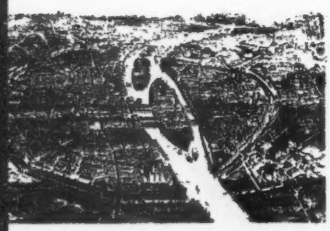
Behind the groomed façades lie the intricate veins of connecting streets and passages, many unsuitable—even useless—for through traffic. Here are the corridors and the back rooms where the town is at home. But it is a nightmare home where the passages are always stopping short, where there is no means of access between adjoining rooms. The pedestrian's town is there but he cannot use it. Knock down some of the walls, however; unlock a few doors, and a whole new landscape—the pedestrian's landscape—opens out. Here he will find relief from the cacophony of the main streets, a lull in which to discover his town's inner self. In precincts which are out of bounds to wheel-traffic, or where only local and essential vehicles may come, he may wander at will, no longer the intruder in his own home. As the tempo retards and the pace becomes more leisurely, the eye can quicken to new facets of the town scene, a more intimate scale, for instance, all the more effective for the sudden contrasts with the larger scale of the traffic network where the two impinge.

In Rome at the time of Severus, 4,* roads, as we understand them, stopped out-

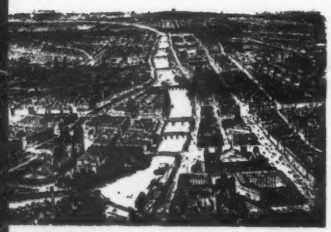
1
2
3

* For the sake of accuracy it should be pointed out that this seventeenth century reconstruction of Rome by Jacob Torenvliet is no doubt more imaginative than accurate; in fact, it was probably just a visual list of monuments. Yet, as a drawing, it portrays admirably the idea of the 'streetless' town where the circulation areas are freely disposed for multiple use by all kinds of traffic.

4, Imperial Rome, a seventeenth century reconstruction.



5, sixteenth century Paris.



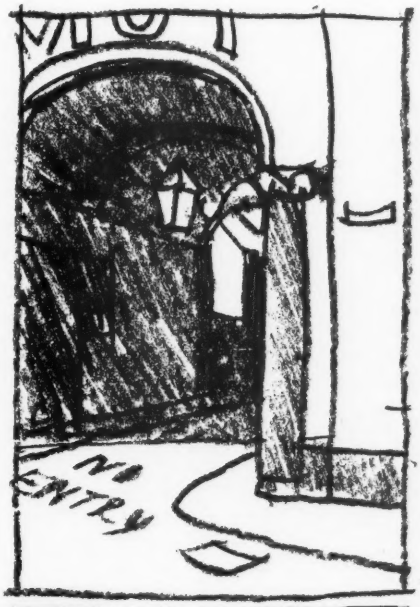
6, Paris in 1860.

side the gates while within the walls the city was like a vast house freely planned; the buildings acted as screens and ornaments and the spaces contained within and around them were free circulation areas. As the process of building up went on and rows of houses began to fill the spaces left over by larger buildings a maze of service roads became necessary. In the airview of medieval Paris, 5, the process is shown under way though the river remains the real highway and the network of streets is still primarily a pedestrian one. But as the demands of wheel-traffic grew and as the builders became preoccupied with the monumental potentialities of the street, the town was sliced up and pushed aside to make way. 6 shows what had happened to Paris by 1860. Here was the beginning of our subjection to the traffic artery and the consequent diminishing of pedestrian territories almost to the point of extinction.

The reconstruction of pedestrian territories needs no long term, expensive, ivory-tower planning. The framework already exists, mostly disused as vacant lots or misused as parking space. But although miles of such byways, throughways and lay-bys are there to be made use of, the full pedestrian system cannot be contrived merely from left-overs; a plan for pedestrian traffic is just as necessary as one for wheel-traffic. The two, in fact, are interdependent, are part of the organic functioning of the town.

What are the points to be remembered in planning such a network? On the following pages its peculiar qualities are isolated, and some ways to achieve them are described and illustrated.

The chief constituents of a planned pedestrian network are Continuity and Variety. The first ensures not only that you arrive at B from A, but that by various devices, illustrated below, your progression is made an adventure. The second, variety, adds flavour to the adventure; some of its constituents—the sense of enclosure, of sanctuary, of anticipation and so on—are illustrated on the pages that follow. To achieve it the townscaper is fortunate in having a large body of precedent to draw upon in the fragments of pedestrian ways that the traffic engineers have left us.



7

8


9


10

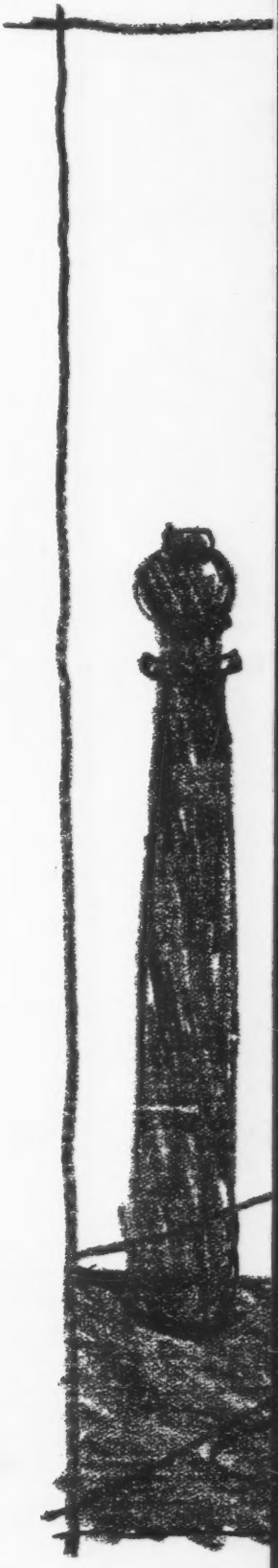

11

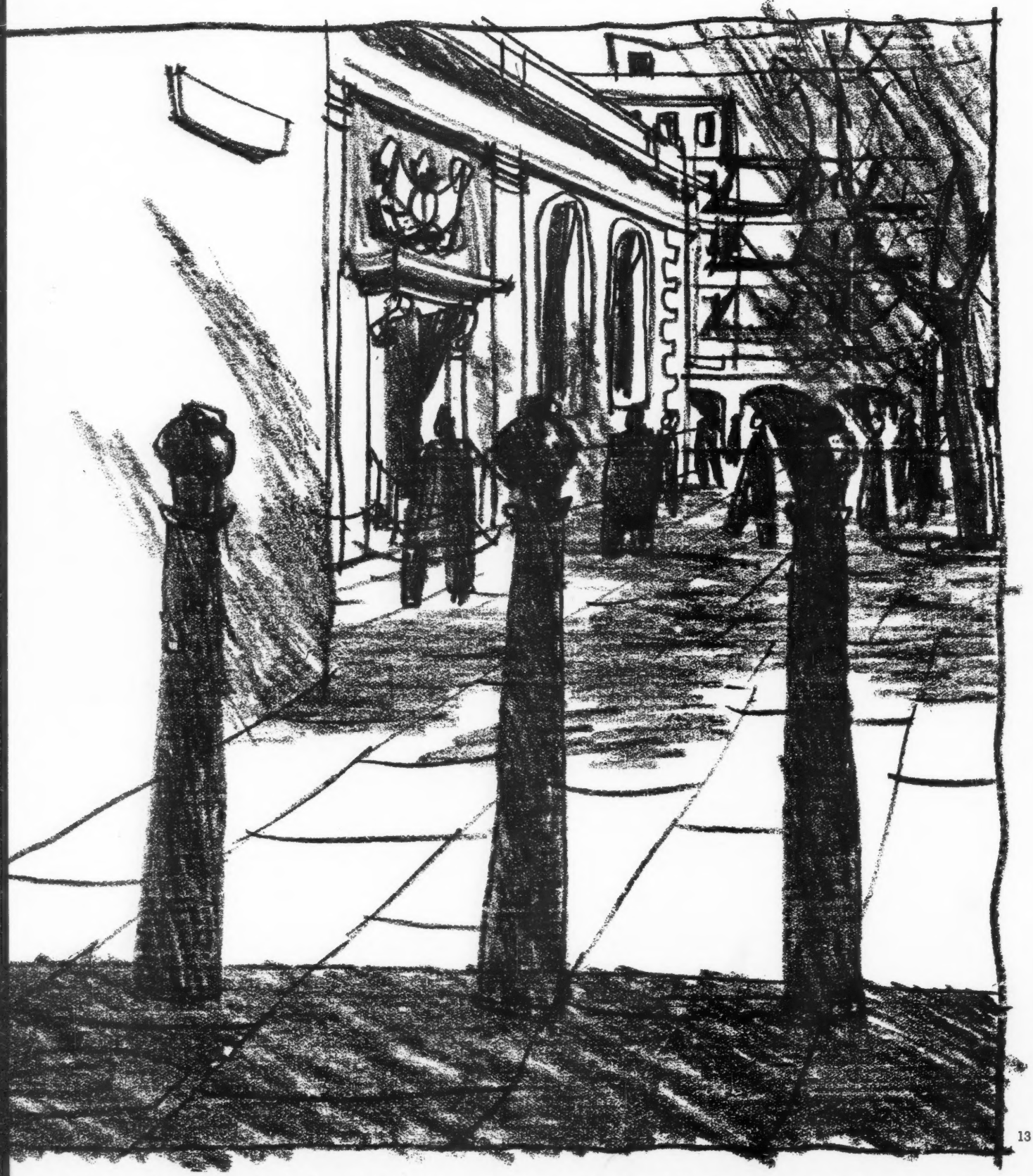

12

continuity

From the invitation of the entrance, 7, round one of the corners in 8, up 9, down 10, across 11, and out again at 12, the network is continued in a series of interweaving threads. In these photographs the accent is on the constantly recurring links which ensure that the pedestrian's way shall be a complete and integral part of the town rather than an occasional backwater. Pleasing though each stretch may be in itself there should always be the intriguing hint of something around the . . .*

* 7, Ipswich. 8, Lymington. 9, Cockpit Steps, Westminster. 10, Scarborough. 11, St. Tropez. 12, Gloucester.





. . . corner, and then around the next—in other words, a constant renewal of interest attained by exploiting the natural resources of the town's inner self.

enclosure ➡

Though the effect of confinement is the essence of the pedestrian way, the occasional piazza for shopping, sitting or strolling about is just as important, and important too as a means of providing spatial variety. 12, *South Bank, is space enough to bring a covetous gleam to the eye of any car-parker, but freed from his grasp it is an ideal junction in the network—the busy piazza, a free, generous, vivacious concourse, but still scaled to the walker.* 13, *a more placid piazza at Tarragona, Spain, saved from a sense of isolation by the grandiose, cathedral-approach steps which lead out of it.* 14, *a lay-by, in Basle, a meeting place between the street and the network which climbs away from it, where the pedestrian can stand back in safety while the traffic roars past.* 15, *the breathing space, a contemplative court with a seat under the trees. Here again the sense of sanctuary is heightened by the noise and blur of the traffic just through the doorway in contrast to the relaxed tempo inside. Drawing by Gordon Cullen.*

12

13
14

15

mystery ➡

16, *Seville, Spain. After the glare and blare of the streets—the enveloping protection of the narrows and shadows.*

16

bottleneck ➡

Released from the rules of ideal traffic weave and flow, the pedestrian can enjoy the drama and interest of special effects like these at Colchester, 17 *and* 18, *effects of compression and release, of dark and light, of monochrome and colour.*

17

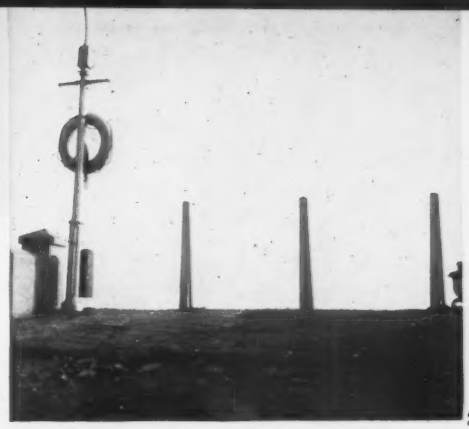
18

19

anticipation

A more dramatic variation on the 'something around the next corner theme.' 20, *the promise of broader vistas over the brow of the hill at Lymington suggests that the journey up and over will be worth it.* 21, *Hythe, a sense of the sea, even if it isn't there—a useful foil to the extreme inlandishness of most of the network.* 22, *the plunge preceded by that moment of hovering suspense between the up and down pitching of a ship. Here, at Scarborough, the down view is accentuated at the overhang of the lamp.* 23, *from the darkness of the narrows the light upon the portico—and its deflecting angle—suggest release into a space of tantalizingly unknown quantity.*

20



21

22

23

safety

A sense of safety lies over this spot in Barcelona, 19; *the attitudes of the children are enough to show it; the simple bollards acting as bastions of their playground.*

sanctuary

24, *the sense of sanctuary at Ross-on-Wye—safety under the sheltering arcades emphasized by the nearness of the traffic routes right alongside them.*

24

25

26

greenery

Instead of the way being channelled between two walls, here, at Devizes, 25, a screen of trees along one side retains the limits and defines the direction of the path, adding interest and relieving constriction. The monotonously claustrophobic quality of this cutting at Tewkesbury, 26, is softened and relieved by small scale planting, neat and informal.

27

28

squalor

Due to the small scale intimacy of the pedestrian network neatness is paramount. Only very little is needed for the atmosphere to degenerate from that of a homely—but well kept—back room to the sleazy squalor of an unkempt back yard. These pedestrian ways in 27, Tewkesbury, and 28, Southwark, point the danger.

scale

The motor vehicle is clearly unsuited to a narrow lane such as this one at Robin Hood's Bay, Yorkshire, 29, *but it is ideal, ready-made material for the pedestrian network, not least in the friendly immediacy of the buildings and the sympathetic scale of the floor.*

29

multiple use

Trams and local traffic are allowed down this slot between the buildings in Valencia, Spain, 30; *but on the condition that the priority of the pedestrian is understood. That this courtesy is observed is evidenced by the carefree, casual strolling of the pedestrians in this photograph. Where necessary in the network, therefore, multiple use is perfectly feasible, so long as the rules are observed. Apart from the necessity of access for ambulance and fire-engines, the change of tempo could provide a welcome relief to the walker.*

30

1 INFANTS AND JUNIOR SCHOOL AT PUTNEY

1, the main school entrance looking east. On the right is the tank tower.

1

2

2, the east elevation of the assembly hall looking north across the playground to the main classroom wing.

AT PUTNEY AND HAMMERSMITH

ERNO GOLDFINGER: ARCHITECT

Elizabeth Rose and Wilma Burrows: Assistant Architects

The planning and construction of these two schools was the result of close collaboration between the architects and the engineers who acted for the manufacturer of the prefabricated units. Three considerations determined the choice of system: speed of fabrication and erection, cost, and steel economy. The reinforced concrete units chosen required less than half the steel needed for the most economical steel construction and their cost compared favourably with that of steel, for erection as well as fabrication. To achieve speed of fabrication only ten different units were used and these were planned for either manual or mechanical erection. However, it was not the aim to design light units easily handled by one or two men, for modern methods of erection and site organization make the use of heavier and more economical units possible.

The structure of both of these schools consists of a system of prefabricated reinforced concrete units assembled as frames braced with further units of cills and lintols. These form a long galley which can then be covered with pre-stressed concrete boards and steel decking units. The system and method of erection are described in full on pages 35 and 36.

Walls and partitions are of the traditional type: 11 in. cavity brick walls and 4½ in. brick partitions. Roofs are of steel decking with insulation board covered with bituminous felt, and ceilings are also of insulation board. In some rooms a plywood ceiling has been added, while in kitchens, lavatories and administration rooms plaster board is used instead of building board for ceilings. There are no cover strips.

Galvanized windows are used in both schools except for the assembly hall and cloakrooms of the school at Westville Road, Hammersmith, where vertical patent glazing was specified. Patent glazing is opened by remote control—one of the units being 57 ft. long and opening in a single movement.

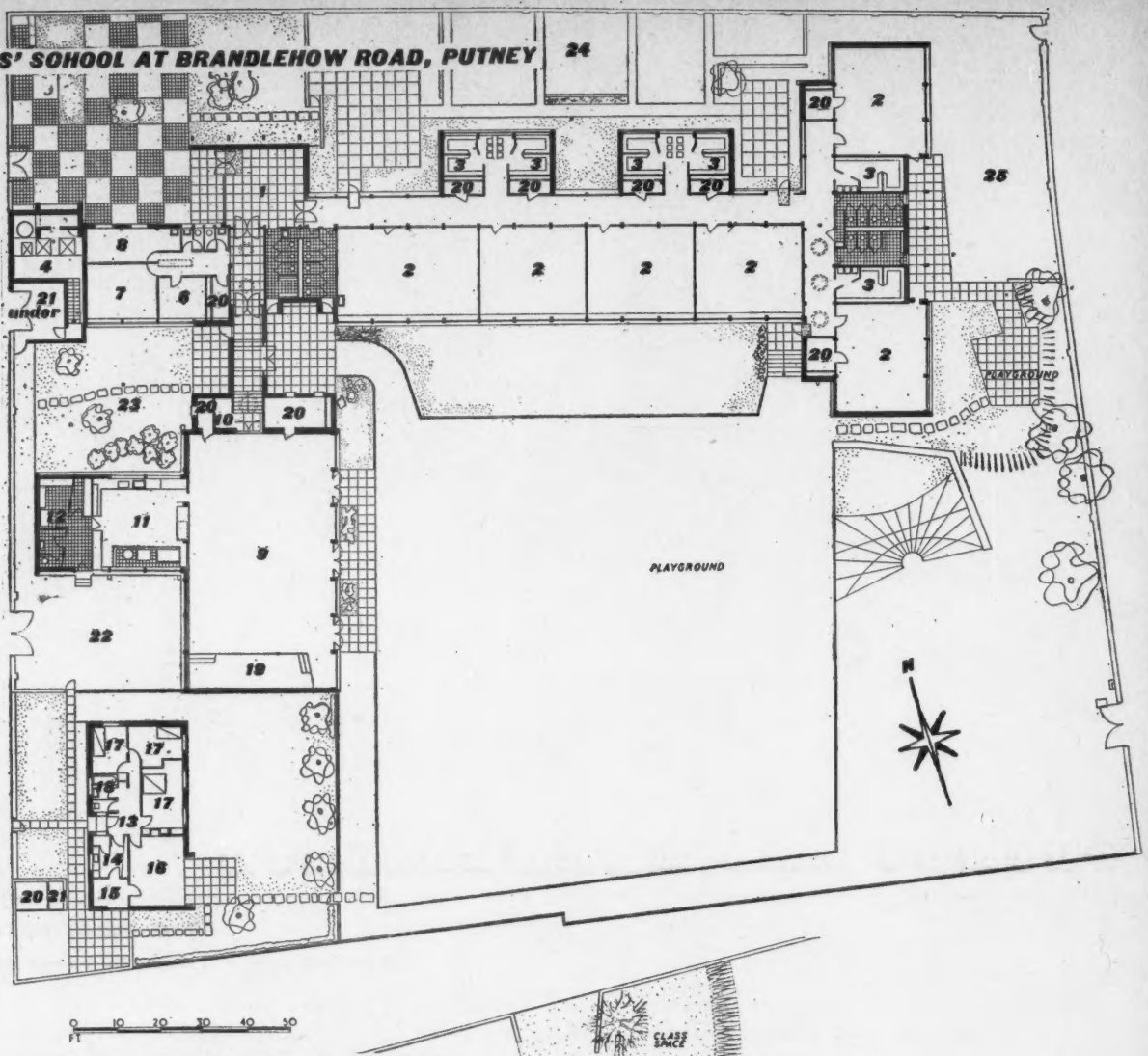
For flooring there are asphalt tiles in all classrooms, corridors, cloakrooms, stores, and in caretakers' cottages; grease-resisting asphalt tiles in the kitchens; quarry tiles in the kitchen stores, under cooking apparatus and in lavatories, and cork tiles in the staff room, headmistresses' office, medical room and caretaker's living room.

All hot water is controlled by thermostatic mixers and plumbing and heating pipes run in ducts which are accessible at all junctions. Heating is by low temperature water radiators except in assembly halls where floor heating is used with pipes embedded in the screed.

All classrooms are provided with racks for special drawers for each child and a teacher's cupboard into which a standard loudspeaker is mounted.

In a number of places bricks are left exposed and for this reason the same facing bricks have been used as for the exterior. Washable distemper of various shades is used on all other wall surfaces and both matt and high gloss paint on wood and metal. Wooden ceilings in the assembly hall and entrance of the Brandlehow Road School, Putney, received clear varnish. In the entrance hall of Westville Road there is a mural by Gordon Cullen.

JUNIOR AND INFANTS' SCHOOL AT BRANDLEHOW ROAD, PUTNEY

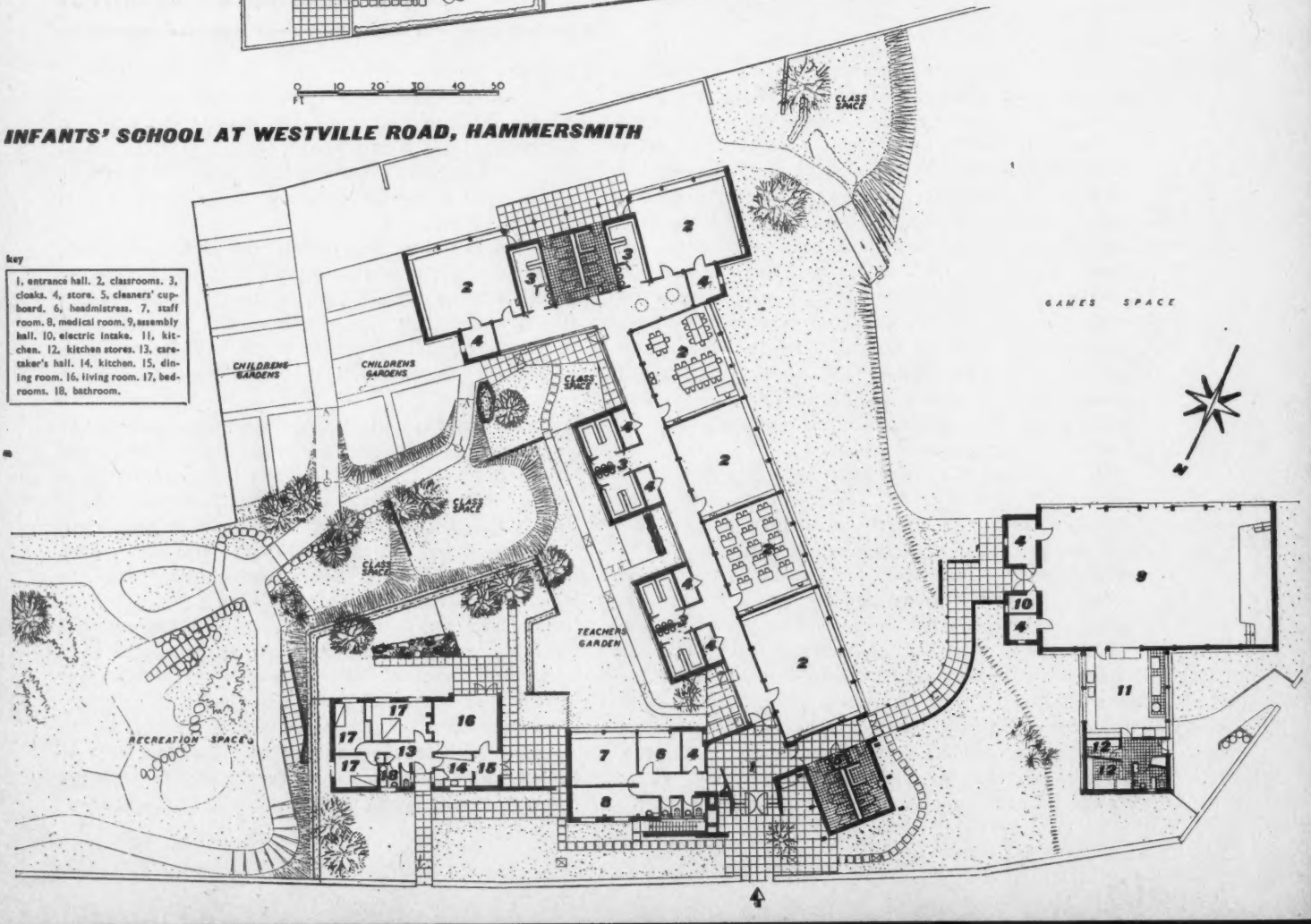


key

1, entrance hall. 2, classrooms. 3, cloaks. 4, boiler house. 6, head. 7, staff room. 8, medical room. 9, assembly hall. 10, electric intake. 11, kitchen. 12, kitchen stores. 13, caretaker's hall. 14, kitchen. 15, dining room. 16, living room. 17, bedroom. 18, bathroom. 19, platform. 20, store. 21, fuel. 22, kitchen yard. 23, staff garden. 24, children's gardens. 25, infants' playground.

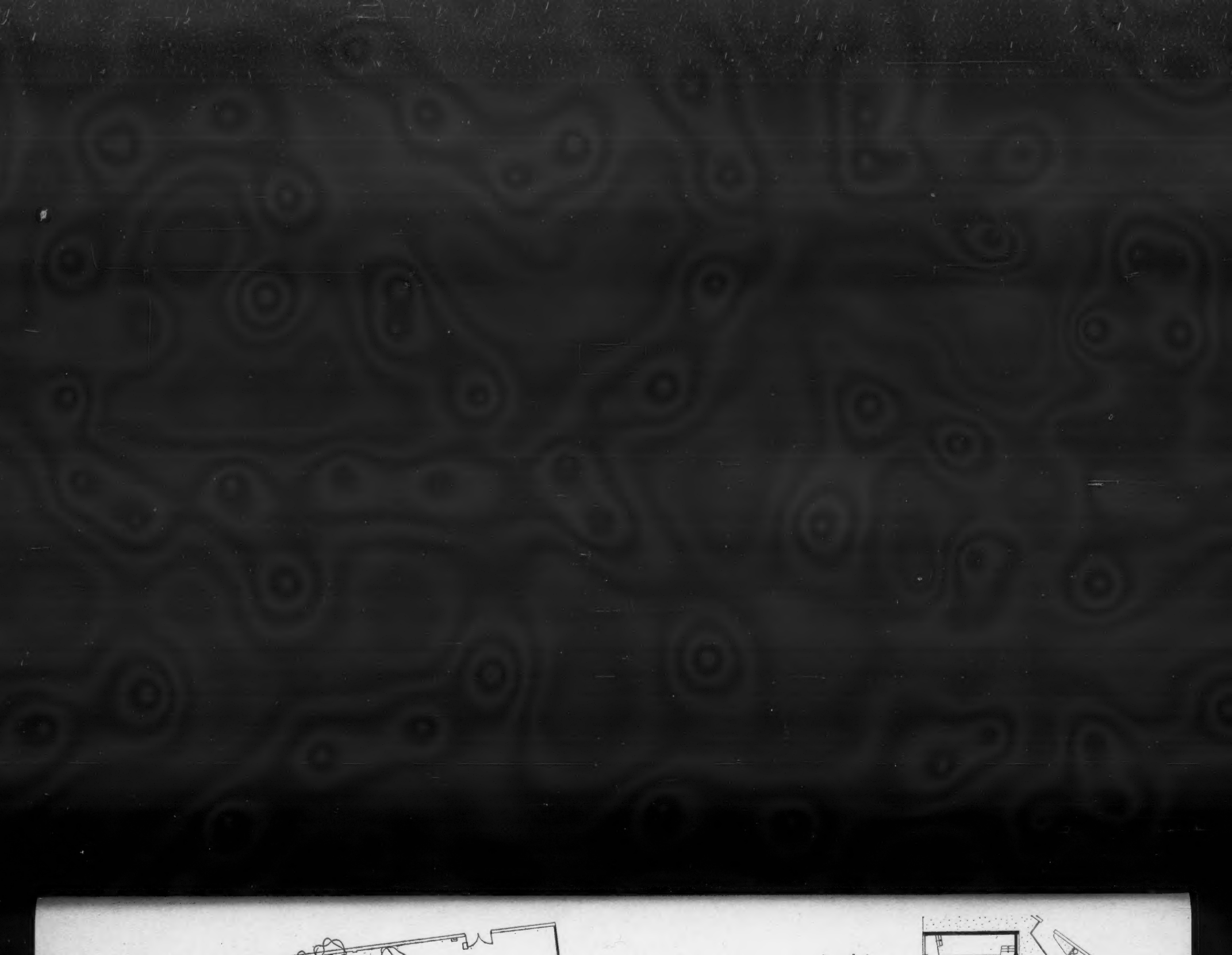
0 10 20 30 40 50 FT

INFANTS' SCHOOL AT WESTVILLE ROAD, HAMMERSMITH



key

1, entrance hall. 2, classrooms. 3, cloaks. 4, store. 5, cleaners' cupboard. 6, headmistress. 7, staff room. 8, medical room. 9, assembly hall. 10, electric intake. 11, kitchen. 12, kitchen stores. 13, caretaker's hall. 14, kitchen. 15, dining room. 16, living room. 17, bedrooms. 18, bathroom.



3

3, the main classroom wing, south elevation, seen from the playground. The doorway on the left leads to the assembly hall and staff rooms.

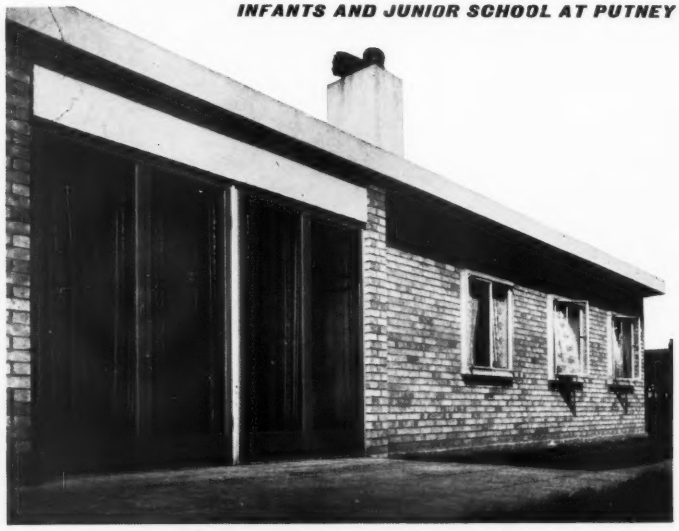
4

5

4, the assembly hall, and 5, the access corridor to the juniors' classrooms. Facing bricks are the same for the interior as for the exterior.

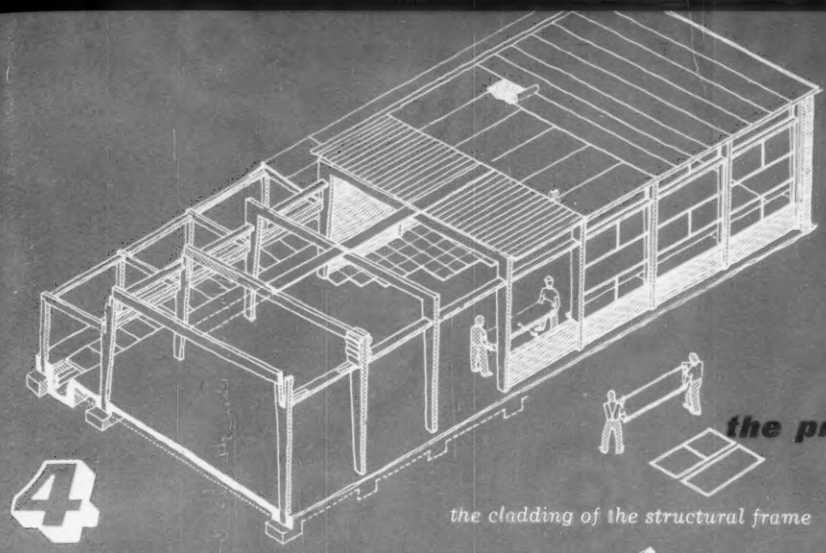
6. a typical junior classroom. There is a loudspeaker and cupboard on the right of the blackboard.

7, wash basins in the juniors cloakroom.



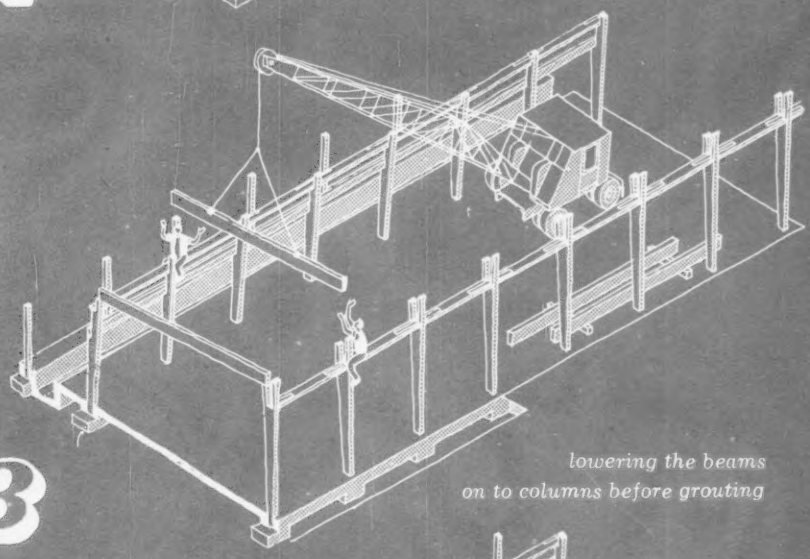
8, the east façade of the caretaker's cottage, showing the sliding glass doors to the living room, with the bedroom windows beyond.

9, the infants' classrooms and separate playground, which can also be used as outdoor teaching space.



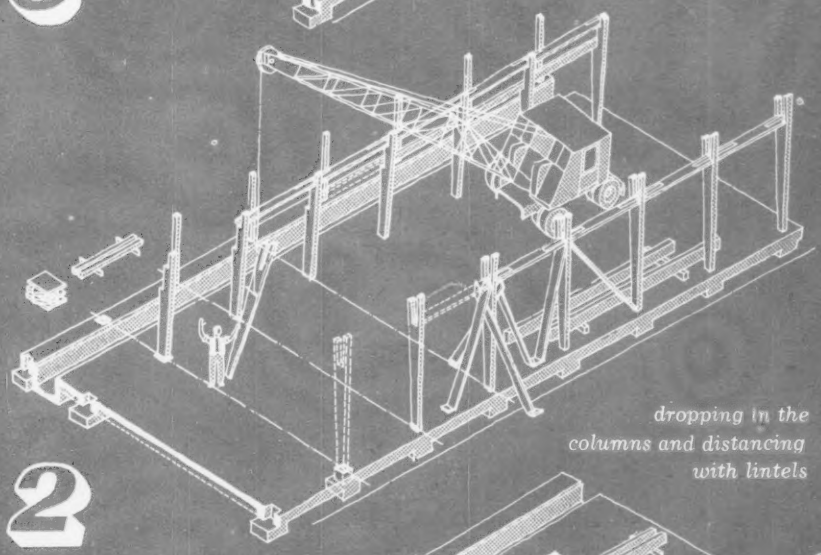
4

the cladding of the structural frame



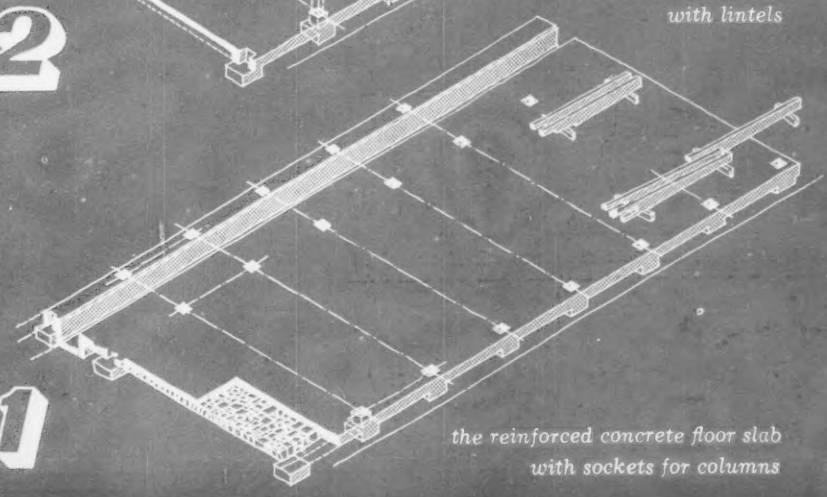
3

lowering the beams on to columns before grouting



2

dropping in the columns and distancing with lintels



1

the reinforced concrete floor slab with sockets for columns

the precast concrete structural system

The problem in designing precast concrete units is to use the minimum number of different sections cast from the minimum possible number of moulds. In addition, there is the difficulty of unifying the separate units to form a continuous structure. In this case the joint was placed in the top of the column where the *in situ* concrete would be masked by the placing of the windows. The arrangement gave adequate length of joint for obtaining suitable lap between the beam and column reinforcement thus enabling sufficient moment to be carried at the connection. The tapered shape of the columns though chosen for purely architectural reasons is also a very suitable shape structurally. This section is largest where the moments are relatively large and maximum continuity moments are produced at the ends of the beams. As a result of this about 40 per cent of the total moment carried by the beams was calculated to be carried by the continuity moment from the columns. The load being fairly light the moments are not excessive for the 12 in. by 6 in. section beam which does not require compression steel. Deflections due to live load are about one-third of the value that would be obtained with a simply supported beam with bolted connection.

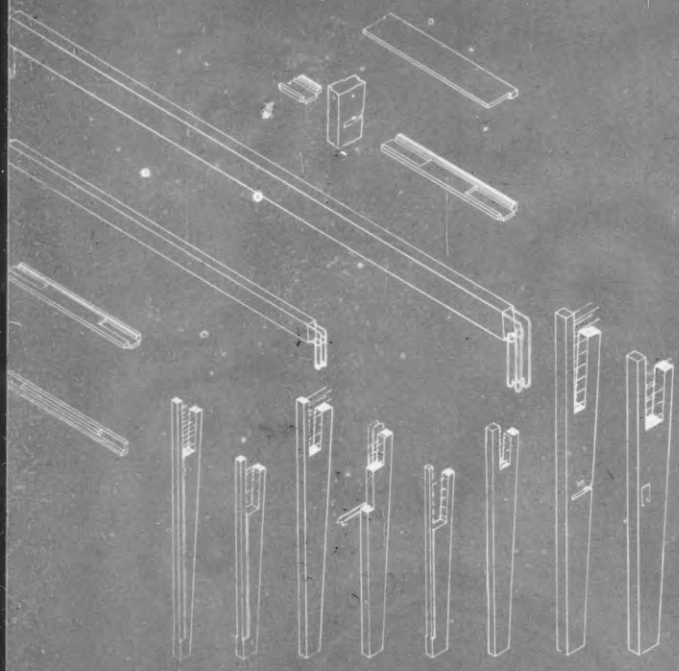
For longitudinal stability and to provide lateral restraint to columns all lintols and cill units were designed to tie the building together by leaving slots for continuity steel to pass through each column. The steel was placed in the grooves formed in each beam unit and the whole made rigid by filling the grooves with *in situ* concrete; very little concrete was needed. Stabilizing struts were provided at the centre of classroom roof beams and two intermediate struts to the assembly hall roof. These struts were pre-tensioned, the small eccentricity of pre-stress being applied to produce a slight initial camber.

Erection

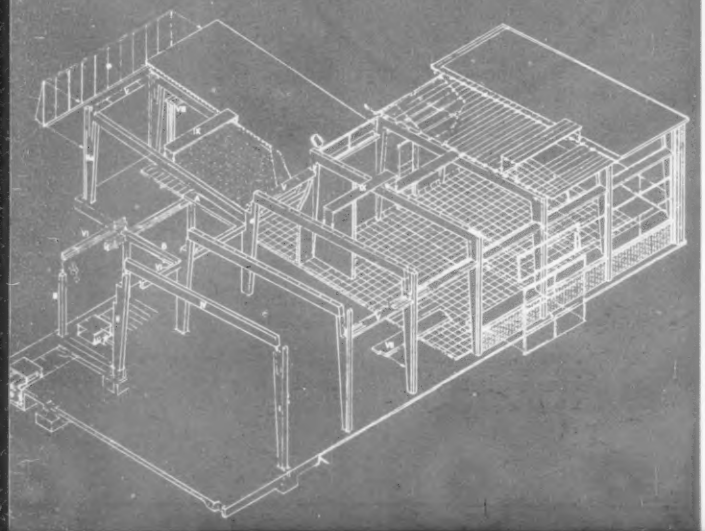
After the clearing of the site by bulldozer only foundation pads and the trench of the general duct were excavated by hand (although this also could have been done in shorter time by a suitable trenching machine). A lightly reinforced carpet was then laid which forms the floor of the schools and, during erection, served as a working platform for a two-ton mobile light crane. Work was started at one end with the crane dropping vertical members into holes where they were temporarily wedged. Lorries at the same time dropped beams at certain points and the crane having worked its way to the end of the row of vertical members returned, picking up beams and placing them on to ledges of the columns where they remained without being fixed. Next

bracing units were fixed into grooves and columns were trued up, lintols and cills forming perfect distancing pieces. Then columns were grouted to the beams and lintols, the simple shuttering being reused. While the crane and two labourers were engaged in unloading further supplies of structural components, the carpenters were shuttering for the *in situ* links. (For the erection of the structural frame at the Westville Road school only two carpenters, two labourers and a two-ton mobile crane and driver were needed for 129 hours or twenty-four working days.) Frames now formed a monolithic structure sufficiently precise to allow large prefabricated window units 7 ft. 9 in. wide to be inserted.

The steel decking roof of the same thickness as the (above-mentioned) stabilizing struts is covered with building board on which is laid the roofing felt. The ceiling, also of building board, is fixed to thin fillets of wood which were inserted between the decking units.



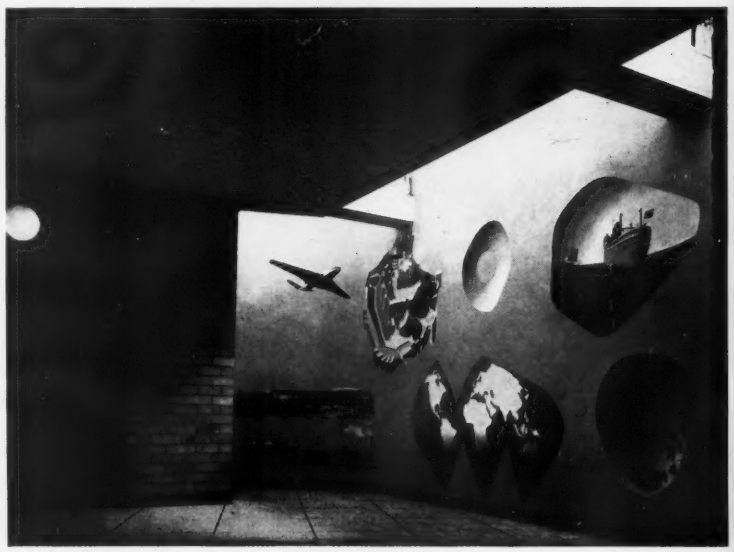
Above are isometric drawings of the prefabricated reinforced concrete columns, beams, lintels and pre-stressed boards. The tops of columns are hatched where beams or lintels rest. The assembly of these components is shown below.



2 JUNIOR SCHOOL AT [illegible]AM

10

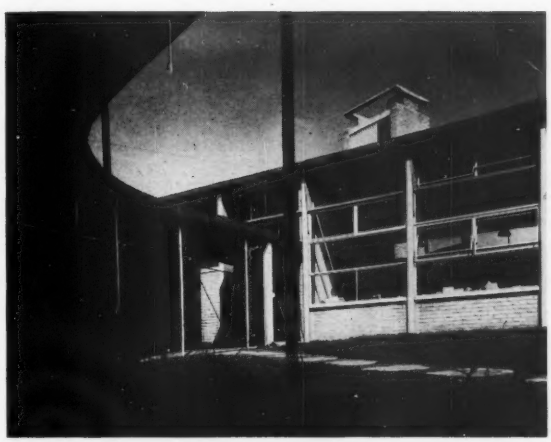
11

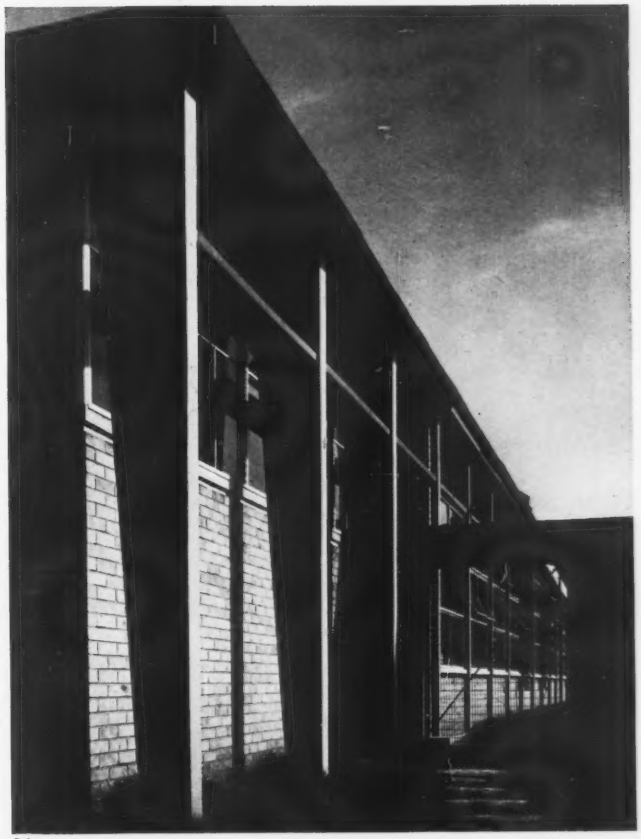


10, the teachers' garden looking towards the staffrooms. 11. mural by Gordon Cullen in the entrance hall.

12, the covered way leading from the assembly hall to the classroom wing. 13, the south elevation of the assembly hall with the classroom wing beyond. 14, the northern end of the classroom wing. The flag path leads round the corner on the left to the main entrance.

12





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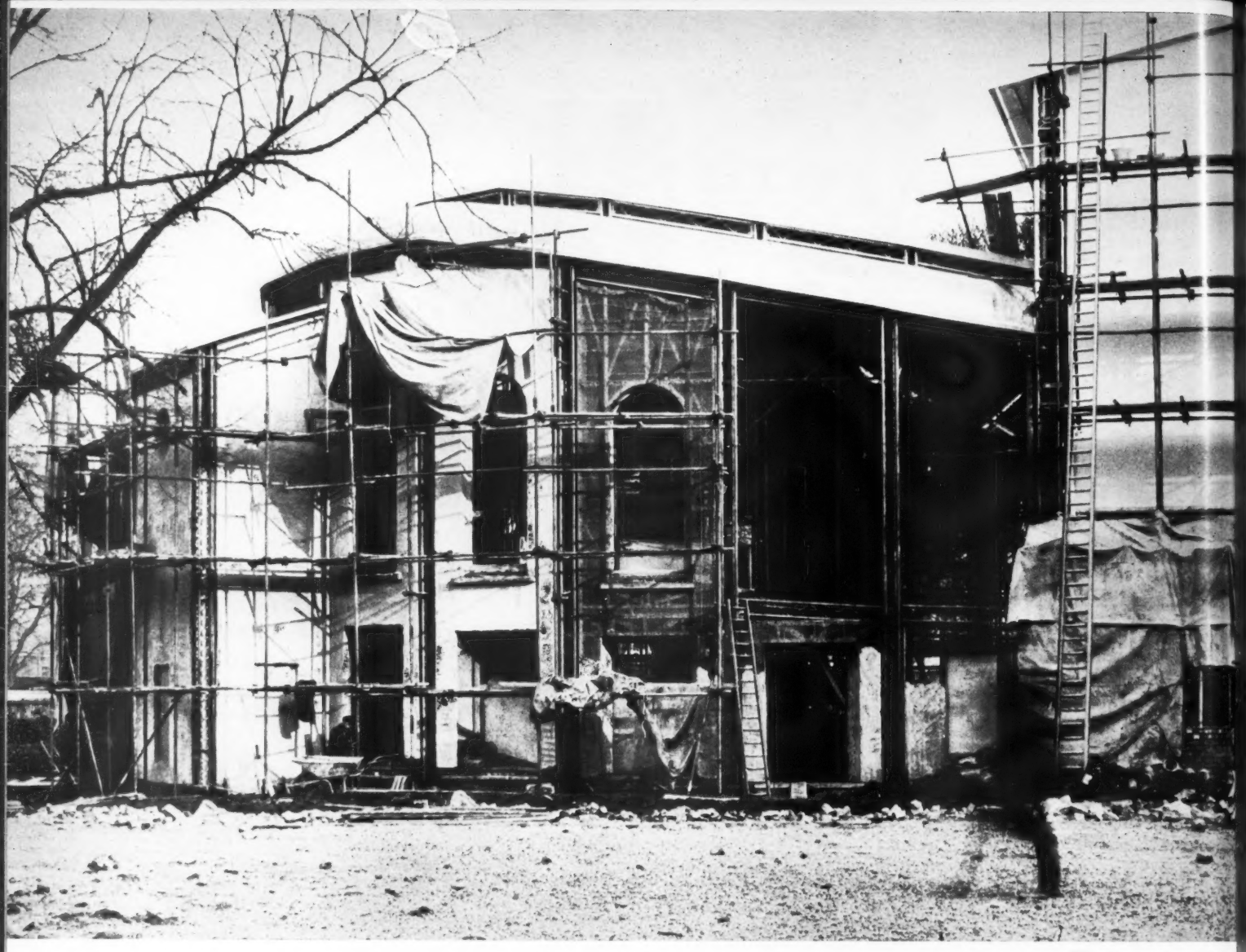
13



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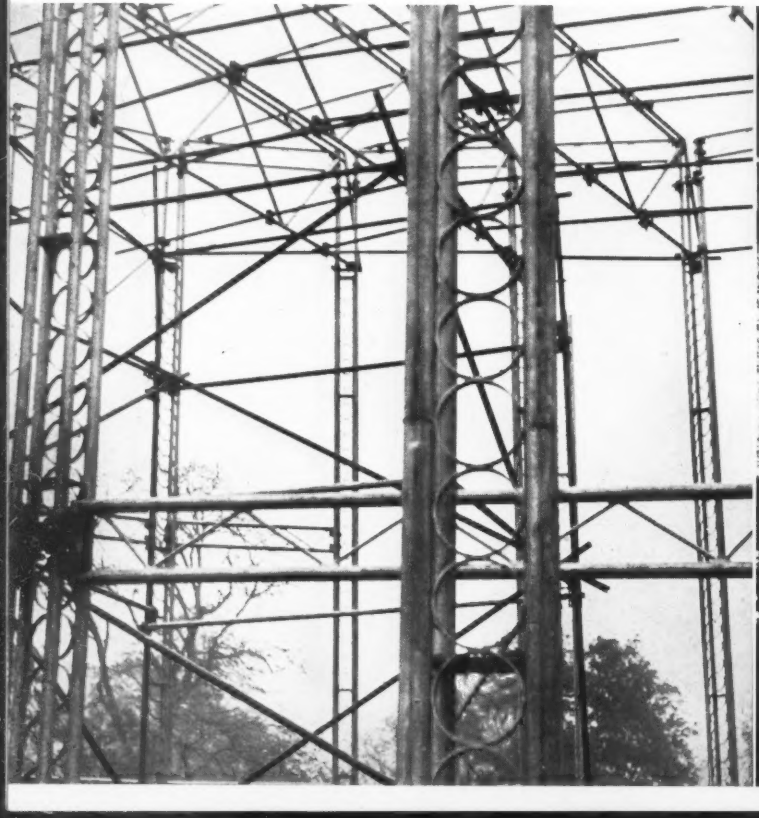


3

1, the Riverside Theatre under construction. The structural framework, 2, consisting of welded stanchions and girders held together by scaffold clips, is 100% recoverable. External wall panels filling the spaces between the steel frames were constructed of double section steel lathing sufficiently rigid to allow for subsequent removal. These panels were hoisted complete except for the plaster finish, 3. The exterior joints were then sprayed from the inside with plastic cocooning (see 12) for weather-proofing.

D. Dex Harrison

EPHEMERAL BUILDING

STRUCTURAL TECHNIQUES EMPLOYED AT THE FESTIVAL PLEASURE GARDENS

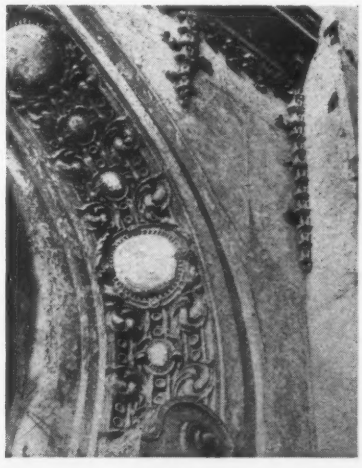
It is a condition of exhibition design that it should register at first sight; it is a condition of exhibition construction that it should be as cheap as possible. How these two conditions were reconciled in the Pleasure Gardens at Battersea, with the aid of canework, tubular steel scaffolding and sprayed plastic in addition to that time-honoured exhibition building material, fibrous plaster, is here described by the Chief Architect on the occasion of the reopening of the Pleasure Gardens for the summer of 1952.*

Since Paxton's awe-inspiring debut in the art of exhibition architecture a century ago, the cult of the exhibition has gone through many fashions, but the architectural problem has always been to achieve the most telling effect in the cheapest possible manner. Impermanence has resulted in a type of design meant to register at first sight, for the buildings are not to last so long that their obvious messages begin to pall, nor for that matter do most people visit them more than once or twice.

The Crystal Palace turned out to be a surprisingly permanent edifice, and the expense of its continued maintenance must have been a perpetual worry to its later trustees. We find that, by the time of the Paris Exhibition of 1900, other materials than cast iron and glass had gained a place in the exhibition field, 4. For the florid, ebullient tastes of the time, fibrous plaster was ideal and it had the advantage that virtually any style of architecture could readily be modelled in it.

4, fibrous plaster decoration at the Paris Exhibition of 1900.

The White City designers used this technique to produce ornate modelling, simulating expensive and elaborate carving. This apparently fragile material has, nevertheless, a stubborn resistance to decay. The photograph, 5, was taken in 1951, forty years after its erection and at least twenty years after its last coat of paint. Though it is now disintegrating, as can be seen in the joints of the flat sheets, the modelled work is as sharp as when it was first put up and would have been as fresh if it had been well cared for. On the other hand one can hardly lavish the same encomium on Wembley, where the rich plasticism of stucco was discarded for the drab and static stability of poured concrete and rendered cinder blocks.

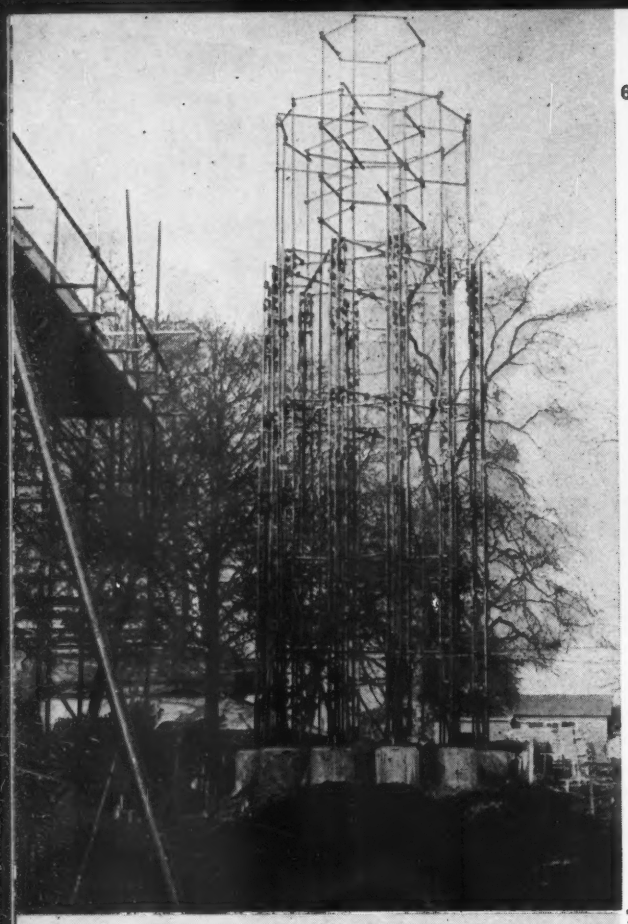


5, a recent photograph of fibrous plaster used at the White City Exhibition in 1908.

At Battersea the presiding genius, Sir Gerald Barry, issued the edict that designs were to be the merest gossamer evocations rather than buildings: a requirement that was not always easy to reconcile with practical needs. The structures of the Main Vista had, however, no other function than to charm and can be cited as the nearest approach to the fulfilment of these desires. Here, design reached its most tenuous form, getting its effect by suggestion and implication, a gothic flavour for the side arcades, 11—classic for the rotundas—all purely skeletal in conception.

Some of the columns are clusters of timber, poles

* The Chief Designer, James Gardner; Landscape Architect, Russell Page; Chief Structural Consultant, C. V. Blumfield.



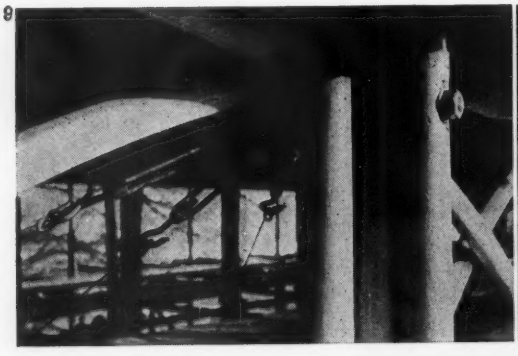
6

8

6, the tubular scaffold forming the structural core of one of the gothic towers in the Main Vista, seen completed in 7. The roof of the entrance to the Main Vista, 8, was formed of plastic cocooning and the scale pattern was painted on it. 9, the straining wires for an arcade column concealed behind the projecting roof. 10, a detail of the scale pattern on the roof of the Main Vista arcades, 11, formed of bent canework.

10

9



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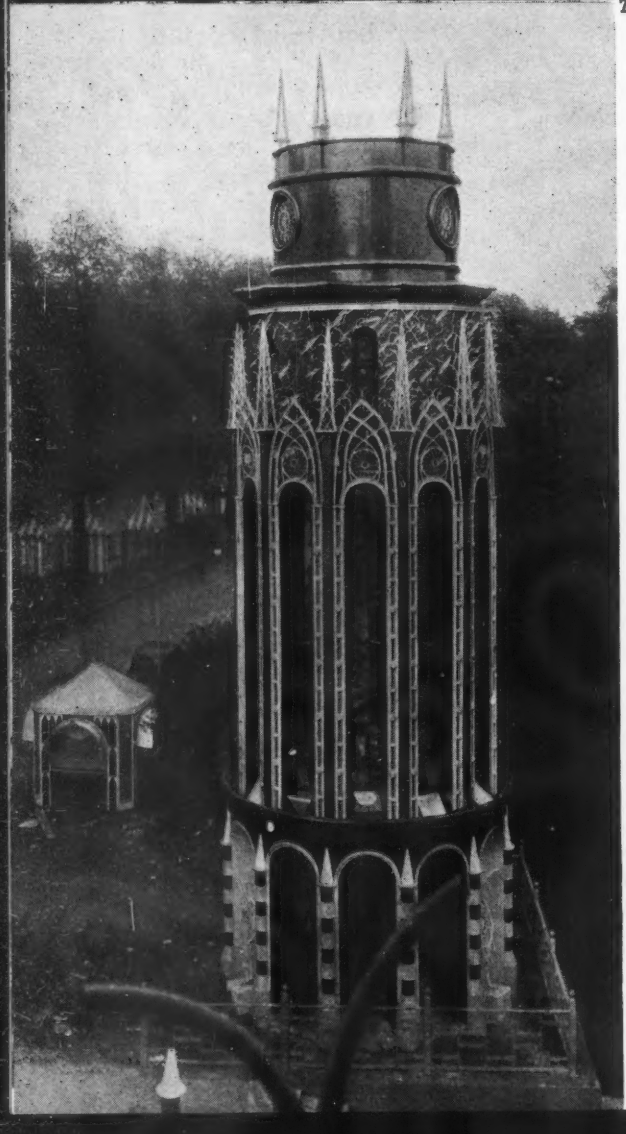
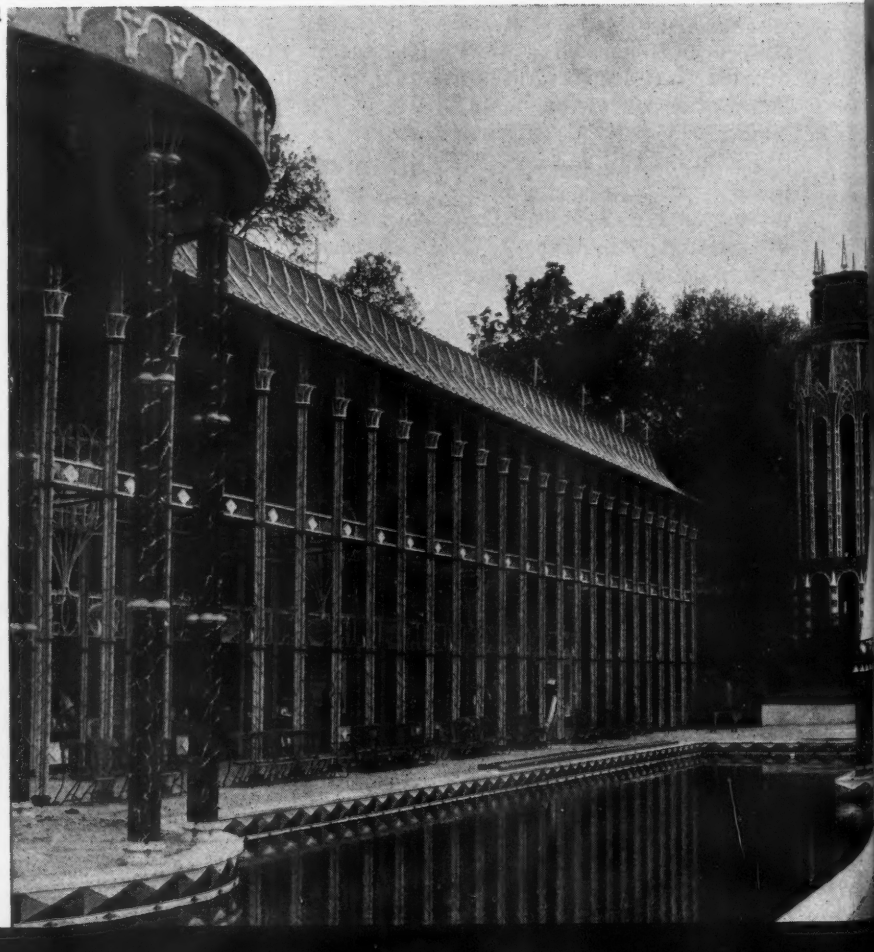


11



nailed together and braced by longitudinal beams, others are built up of 2-inch timber poles top and bottom with webs of expanded metal. The cigar beams were formed of four 2-inch poles stressed over wrought iron hoops and the whole frame was tied together by straining wires, 9. A decorative frieze of non-structural fibrous plaster hoops ran along the top of the arcades and the gothic binding moulds round the columns were also in fibrous plaster.

It was part of our task as architects to translate the ideas of the designers into terms of practical building. One of the small but surprisingly difficult problems set us was how to get the pattern of scales on the curved roofs of John Piper's gothic arcades at a reasonable cost. To have modelled them would have been too expensive, to have painted them on too insipid. The solution was found in canework, simply and cheaply bent to shape and wired together, 10.

Canework was lavishly used throughout the Gardens as a means of obtaining tenuous decorative effects at a minimum cost. This material will last several years if well painted and was all produced by a firm near Seven Dials who have been in the industry for three hundred years. So much was used at Battersea that all available supplies of the material were used up. The cane which is solid in section, in distinction from bamboo which is hollow, is bent by playing it over a bunsen burner, rapidly bending to the required shape and quenching in water, thereafter it will hold its shape extremely well. Lay figures were designed by Ursula Earle to go on the top of the rotunda building. This type of skeletal design lends itself very well to illuminated effects at night.

For the two gothic towers, 7, fibrous plaster was used to achieve a greater sense of solidity; however, canework was also used here to produce tracery effects which would have been too delicate to execute in plaster. The structural core was of tubular scaffold in the form of eight four-tube columns, framed and braced entirely with normal scaffold clips, a complex example of what can be done in this medium, 6. The fibrous plaster sections were wadded directly to the tubular framework. This traditional method of fixing fibrous plaster looks very flimsy and insecure but develops, in fact, great strength.

Osbert Lancaster's original sketch of the big chandelier feature at the head of the Vista, 8, was not easy to translate into material form. By the time it was to be made supplies of cane had been exhausted and the peculiar situation arose of having to substitute wrought iron and fibrous plaster for cane, where before we had been substituting the cheaper cane for wrought iron. The framework was done in welded tube, somewhat thinner perhaps than could have been desired from the æsthetic point of view, spandrils were filled in with aluminium expanded metal gauze and the clerestory arches were in fibrous plaster. The translucent dome was sprayed plastic over a metal frame with painted scales.

Sprayed plastic, developed from the post-war cocooning techniques used to preserve ships, planes and guns that had to be stored in the open, 12, was given its first big try-out at Battersea, more especially for lighting fittings, and the material is a promising new asset in building.

The shape of the Centaur Building, 13, reflects fibrous plaster technique, in no other material could it be cheaply reproduced. It was desired that the large plain wall surfaces, however, should undulate and so a special wire lathing, to which small clay blocks were adhered, was used. Shapes that were not sufficiently complex to justify moulding in fibrous plaster, or that were only 'one off' jobs, were also produced in this manner, 14 and 15.

The Cremorne Beer Garden took its basic shape and inspiration from the traditional fair roundabout, with its recessed canvas walls, topped with a generous frieze. Here the aim was to obtain a night effect of lacework hanging in the sky like gossamer and it was executed in fibrous plaster cast from the mould in sections approximately six feet square, two to each bay, 16. The frieze was liberally braced back with

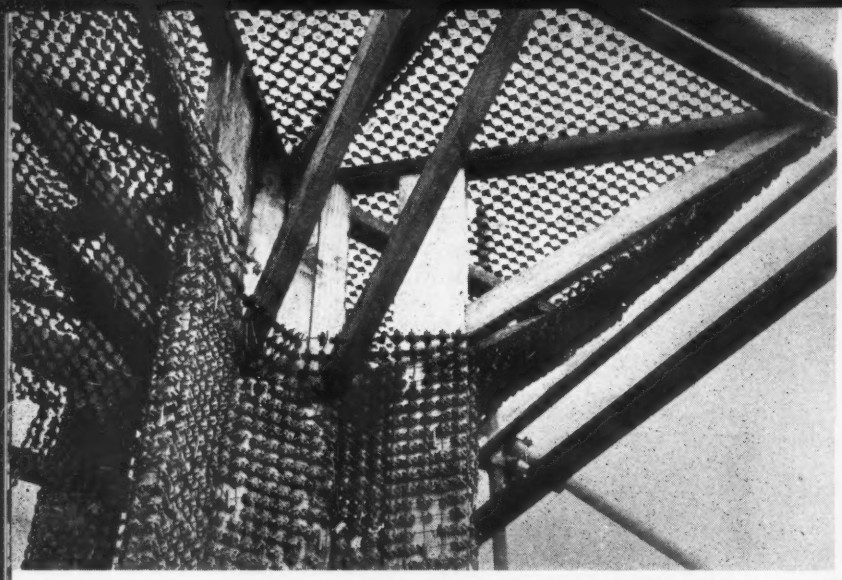
12

12, a demonstration of the war-time preservation technique of spraying with a plastic cocoon which was used both for the entrance to the Main Arcade, 8, and for the Riverside Theatre, 26.

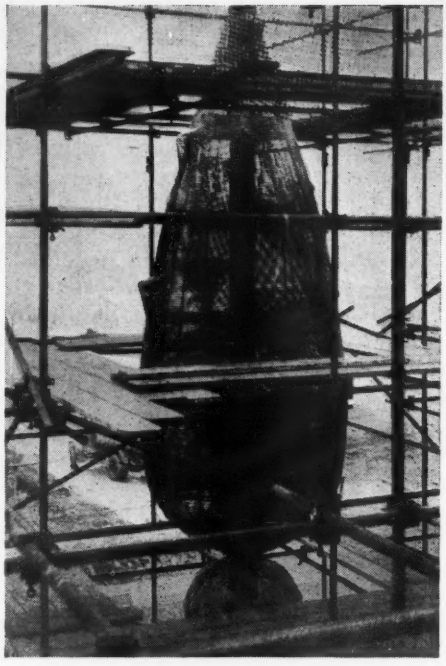
13

13, fibrous plaster figures on the roof of the Centaur building, designed by Hans Tisdall.

14



15

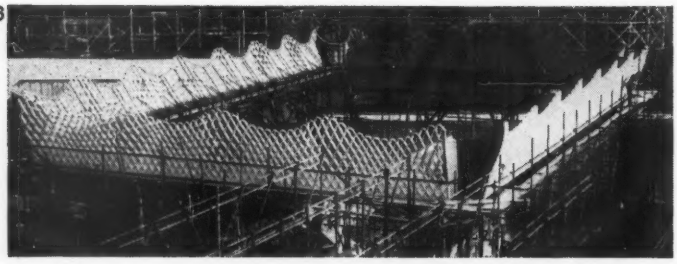


14 and 15, examples of the special wire lathing for use with small clay blocks for simple shapes or for single jobs not justifying moulding in fibrous plaster.

strap iron, wadded to the fibrous plaster and the finished structure, despite its delicate appearance, was surprisingly strong, 17. The actual thickness of the material was only about $\frac{3}{4}$ inch and measured from the top of the ribs only $2\frac{1}{4}$ inches. The material was given two coats of hot oil at the works to protect it during the period of erection and subsequently painted. It was impossible to draw out the design accurately and it was therefore developed in model form and finally checked by eye adjustment on the full-size clay model at the factory.

Whether steel or timber framing was used in a particular building depended more upon the supply position during the few months when the design was being developed than upon any other factor. During this short period the position would change from week to week and a very delicate balance had to be made. The Garden Pavilion, 19, was one of the buildings with a timber frame, used in preference, when available, as easier fixings could be obtained for the cladding materials. In this instance the large octagonal double curved dome had to be done *in situ* with the special wire lathing mentioned above and plastered. The smaller kiosks could be made up in fibrous plaster sections to a better contour and these were designed to sit on welded tubular frames, each taking about three days to erect, 18. These roofs were treated with bitumen and given a coating of aluminium paint before the final coats of bituminous emulsion paint were applied. All the decorations on this building were done in fibrous plaster and it is interesting to compare the different values of this essentially fibrous plaster decorative technique, with its bold flowing modelling and easy handling of complex curves, with that appropriate to canework, equally flexible but essentially skeletal in make-up. In the central porches with their elaborate turned columns, design is perfectly adapted to fibrous plaster technique and could not well have been done in any other medium. The turned columns are, of course, cored with tubular steel and this makes possible the exaggerated wasp waist effects.

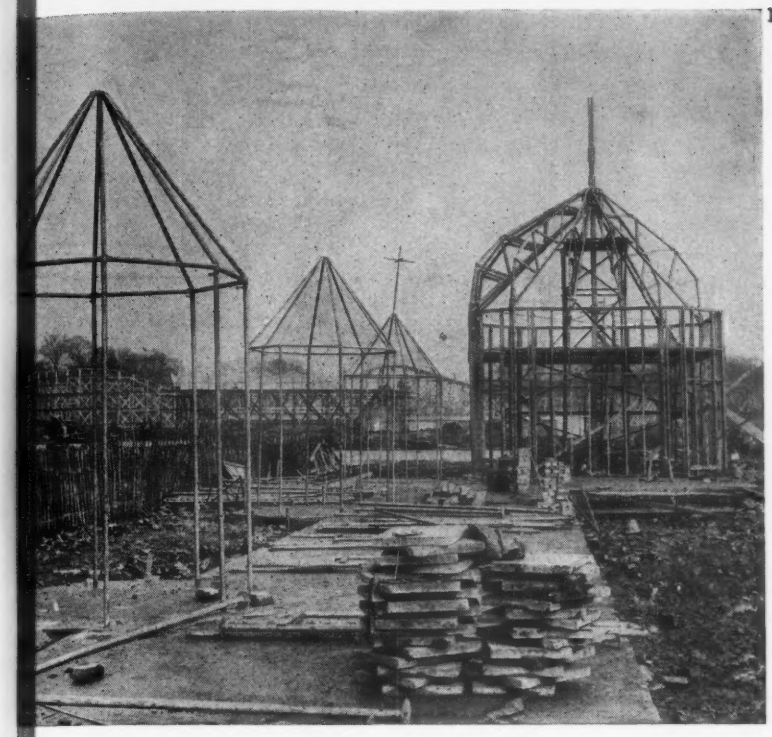
16



17

16, the light, fibrous plaster frieze above the Cremorne Beer Garden, designed by Harrison and Seel, showing in 17 the iron straps that support it.

Of all the varied problems at Battersea, the Emett structures were something apart. Nothing *quite* so unstable as Emett's drawings could be made to stand up in the open air, buffeted by wind and weather. It would have been easy enough to have had modified designs modelled in fibrous plaster, rather like film sets, but it was agreed that they should be built up properly of odds and ends of materials that came to hand, 20. Among other things some old cast-iron lamp-posts were acquired from Hammersmith at 10s. 6d. each and these were used to form the columns of the Station Bar. Carefully set at angles off the perpendicular they were stabilized by embedding their bases in concrete. We could not have wished for better structural members; because of their girth, they had sufficient stiffness to allow an angle of 12 inches or so out of perpendicular. The roof was then carefully framed to contain the tops of the columns. The bricks of the station platform were genuine ex-railway stock.



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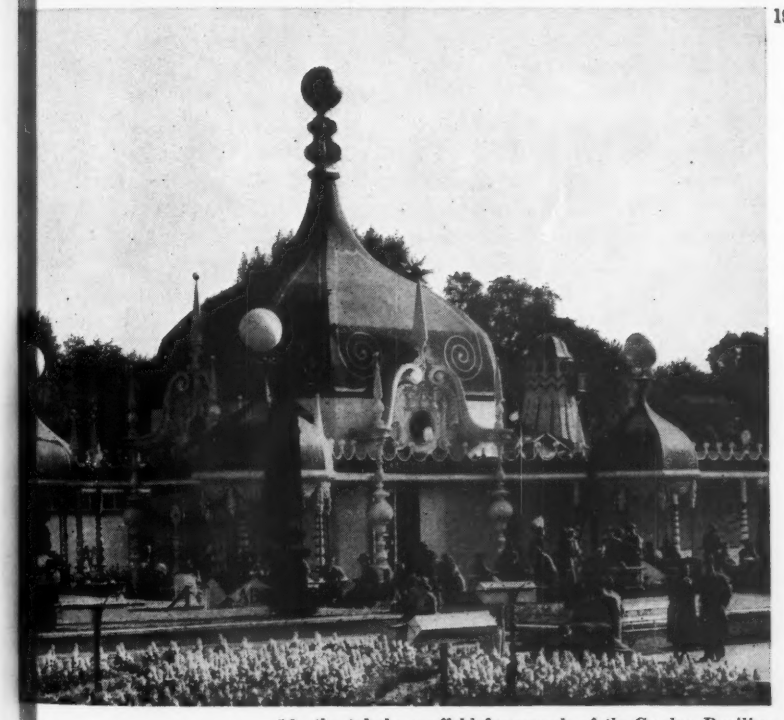


19

18, *the tubular scaffold framework of the Garden Pavilion, designed by Harrison and Seel, seen completed in* 19. *Fibrous plaster roofs were treated with bitumen and finished with bituminous paints.* 21, *standard aluminium framing for large buildings which was delivered to the site ready fabricated.* 22, *the framework in course of erection.*

Of all the buildings the railway stations were perhaps the most appreciated by the workmen.

In a project of this nature prefabrication of components off the site was imperative wherever it could be achieved. Small structures like kiosks were made in one or more pieces and brought on complete. Quite a few of the larger buildings were of prefabricated timber construction requiring only erection at the site and these buildings went up with remarkable speed. Most of the Zoo buildings were of this type of construction.

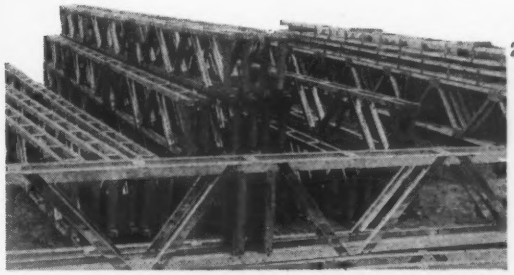
All the booths were framed in aluminium, stanchions and beams being delivered already fabricated and only needing to be keyed together with the special system adopted by the suppliers, 21 and 22. Both these types of structure are fully demountable and may be expected to have a substantial off value when the time comes for them to be sold.

20

20, *one of the Emett railway stations made from scraps of material that came to hand.*

Canvas was extensively used at Battersea, particularly where areas of large span had to be roofed economically. It is a tricky material which must be handled by tentage firms, who bring years of experience to the work. The tendency of the designer is usually to get the slope too flat in striving for effect, in which case the canvas soon bellies and collects water.

The Dance Pavilion by James Gardner and Roger Pullen, 23, is a veritable *tour de force* in canvas technique, the voluted shape being without precedent,



21

22

23

24

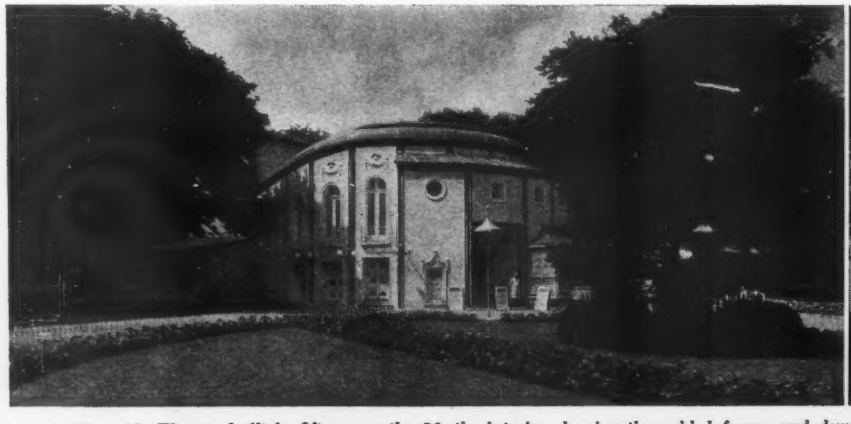
23, the Dance Pavilion and 24, the Crescent Restaurant—two examples of canvas tenting each employing a different technique.

and the whole structure is braced by its internal valence. The difficulty was to get the volutes to retain their shape since canvas slackens and tautens according to the weather. On the other hand, the canvas treatment in the Crescent Restaurant, 24, by Patrick Gwynne and Felix Samuely was quite orthodox but the supporting structure showed a most ingenious system of balanced forces incorporating the use of a loaded beam in the valley to keep the canvas continually taut, the whole structure being dynamic in the literal sense.

Undoubtedly, the most difficult of all the Battersea assignments was the Riverside Theatre, 25. This structure had to be demountable so as to have an off value and this requirement, and the fact that only fifteen months were available in which both to design and build it, in combination with the temporary nature of the project, posed some difficult technical problems. The designer's brief was for a Regency pastiche and his sketch indicated a lacework framing as part of the exterior effect. It was decided, therefore, to expose the structural frame externally and to obtain the decorative effect by forming the web in a series of welded rings, and to fabricate the entire frame out of tubular steel, 26.

The frame was made up of a combination of welded stanchions and girders held together by scaffold clips; these were for the most part obscured in the finished building, and are entirely recoverable, 2, p. 38. The balconies, 26, were made up in aluminium framed trays with an expanded metal floor, filled in with lightweight concrete and these, too, are demountable, and the balcony fronts are held by a few bolts and can be removed complete. Similarly the external wall panels, filling the spaces between the steel frames, were each built up in two sections of sufficient rigidity to enable them to be removed subsequently; the panels were hoisted into position complete but for the plaster finish, 1, p. 38. A space of $1\frac{1}{2}$ inches was left between the panels and the steel, since it was necessary to allow the panels a certain amount of free movement, 3. One of the tricky problems in exposing the framework of a building in this manner is to make it weather tight, and the complex nature of the joints can be appreciated in 2, p. 38. This was solved by cocooning the structure internally around the whole perimeter at roof level in sprayed plastic, by the technique illustrated in 12. It is believed to be the first structural use of this technique in building. The most complex joints can be treated by the method and the resulting membrane is flexible and absolutely watertight, but of course should only be used where inaccessible to prying hands, as it can be punctured. Though the plastic is inert and should, theoretically, have a long life, it has not been in existence long enough for any final assurances on its life to be made.

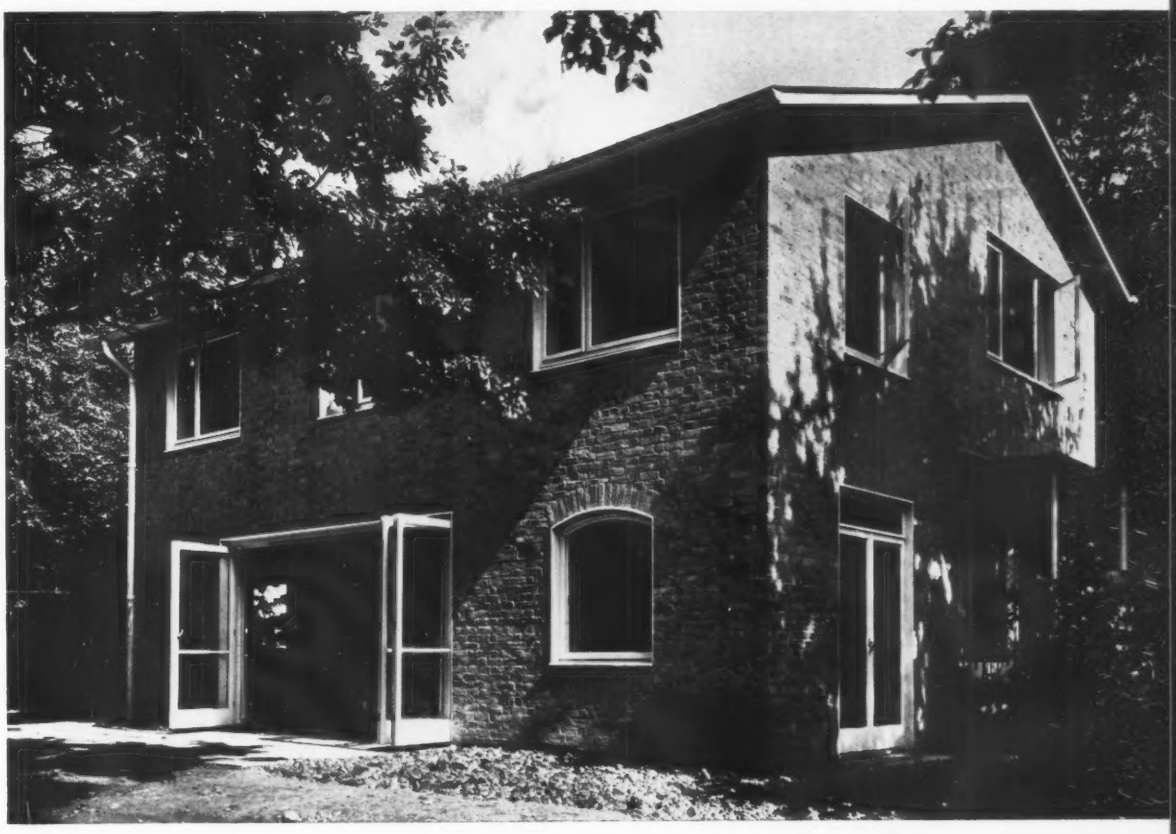
25



26

25, the Riverside Theatre, built in fifteen months. 26, the interior showing the welded frame and demountable balconies. The designer was Guy Sheppard.

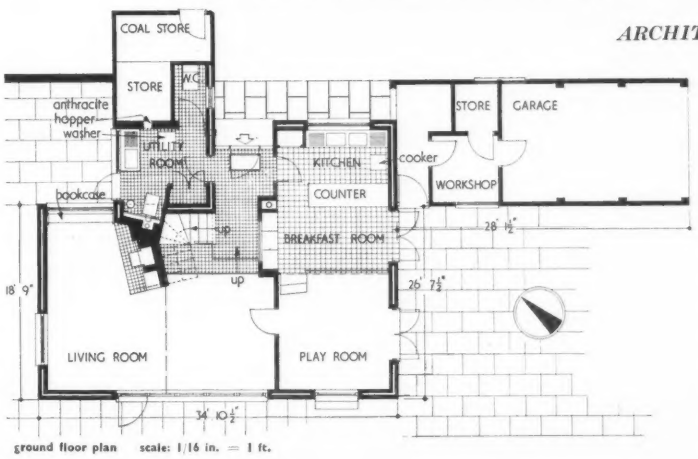
1



View of the house from the south.

HOUSE AT WELWYN GARDEN CITY

ARCHITECTS: ARCHITECTS CO-OPERATIVE PARTNERSHIP



ground floor plan scale: 1/16 in. = 1 ft.

The clients required a house which, within the restrictions imposed by a floor area of 1,500 sq. ft., would give the maximum living accommodation with a minimum of separation between the rooms in general day use on the ground floor. Also required was an area where the children could be noisy and at the same time supervised during hours of ordinary housework, but which could be altered when the children grew up. This is why the partition dividing the playroom and living-room has not been structurally bonded into the main walls and an RSJ carries all the first floor load. External walls are of 11 in. cavity construction with the internal skins and partitions of 4 in. clinker blocks. The roof is of light timber trusses supporting two layers of ½ in. insulation board faced with 30-gauge copper sheet with vertical up-stand welts: flat roofs are of 3 in. concrete. External walls are faced with yellow stock bricks and these are used internally for the entrance area, staircase wall and fireplace; elsewhere walls are plastered.

2, the living-room looking towards the terrace. 3, *the playroom from the kitchen.*

2 3

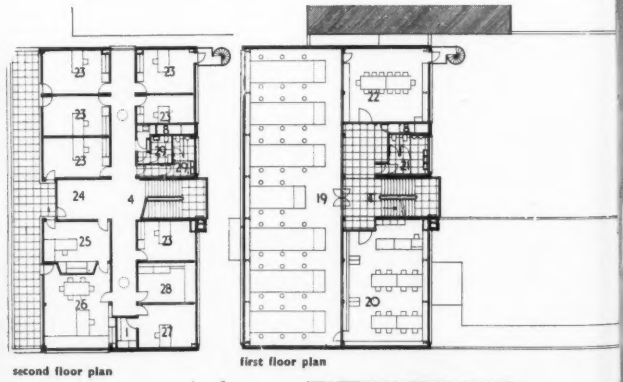
4, the exhibition hall, spanned by welded steel trusses.

CIVIC DESIGN SCHOOL, LIVERPOOL UNIVERSITY

ARCHITECT: GORDON STEPHENSON

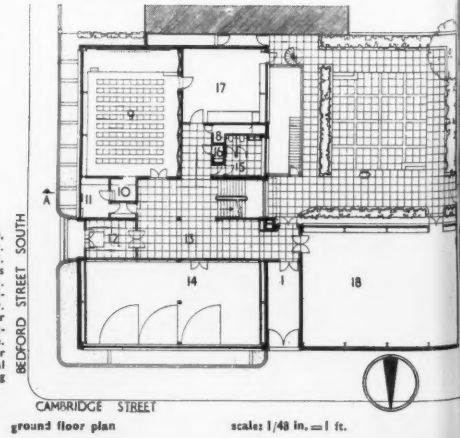
To achieve harmony with the Georgian houses in the square in which this building stands, the terrace canopy on the main façade continues the cornice line of the houses, and sill and head heights of the main windows also correspond. Brickwork, like that in the square, is Flemish bond. The building is entirely steel framed, and, except where it carries the external walls, the steelwork is not covered by concrete. Roof and floors of the main block are in precast reinforced concrete units resting on the steel beams. Internal partitions are in general of stud construction covered in medium hardboard and wallpapered.

5, view from the garden in Abercromby Square.



second floor plan

first floor plan



key

8, duct. 9, lecture theatre. 10, projection room. 11, porter. 12, vestibule. 13, entrance hall. 14, criticism room. 15, women's lavatory. 16, public telephone. 17, modelling shop. 18, exhibition hall. 19, studio. 20, library. 21, men's lavatory. 22, seminar room. 23, staff room. 24, waiting space. 25, secretary's office. 26, professor's room. 27, senior lecturer's room. 28, editorial room for the 'Town Planning Review.' 29, staff lavatory.

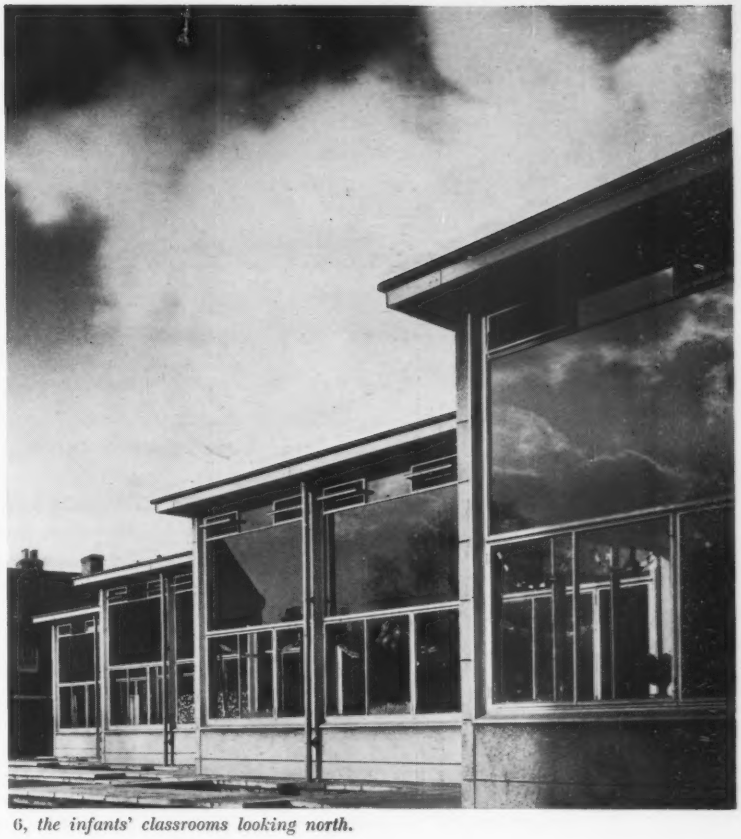
ground floor plan

scale: 1/48 in. = 1 ft.

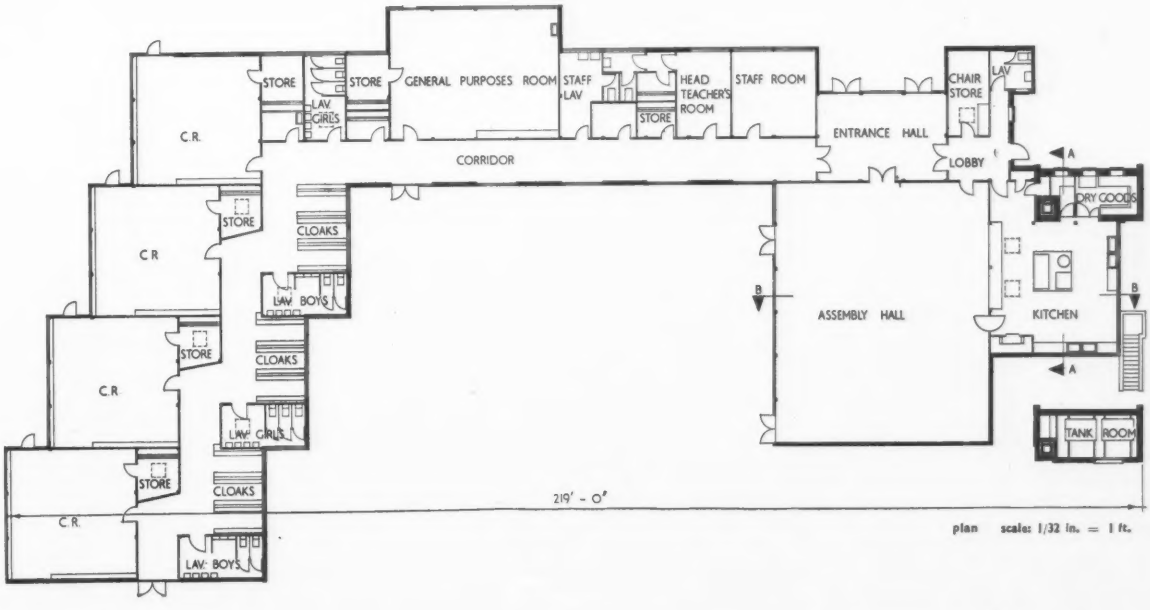
PRIMARY SCHOOL AT DEPTFORD, LONDON

LCC ARCHITECT: R. H. MATTHEW

The Hughes Fields primary school accommodates 200 infants and provides dining facilities for 75 per cent. of the pupils in the assembly hall. A south aspect for classrooms was considered an overriding factor and the restricted width of the site influenced the siting of the assembly hall and main entrance. The staggering of classrooms and adjacent cloakrooms was chosen to give a more intimate scale to the building. The frame is of light, welded, galvanized steel with walls of precast concrete. Slabs have white spar or grey granite chippings on the outer face and the inner skin is of artificial stone blocks. The boiler house and tank tower are constructed in Uxbridge flint bricks in two colours, and roofs are of precast concrete finished with felt and gravel. Floor finishes are terrazzo in the entrance hall, thermoplastic tiles in cloakrooms, corridors and staff rooms, composition blocks in classrooms and assembly hall, wood-latex in the kitchen, quarry tiles in lavatories and granolithic in stores. Walls are plastered and painted or distempered in bright colours in circulation spaces and subdued colours (mostly white) in classrooms. A patterned wallpaper is used on the stage wall of the assembly hall. Fibreboard ceilings are distempered throughout.

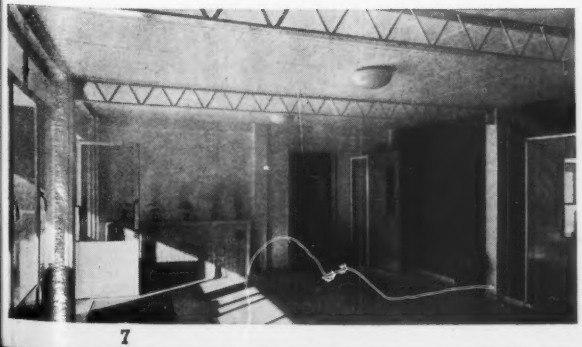


6, *the infants' classrooms looking north.*



plan scale: 1/32 in. = 1 ft.

7, *the entrance hall.* 8, *the servery in the north wall of the assembly hall.* 9, *the general purposes room.*



7

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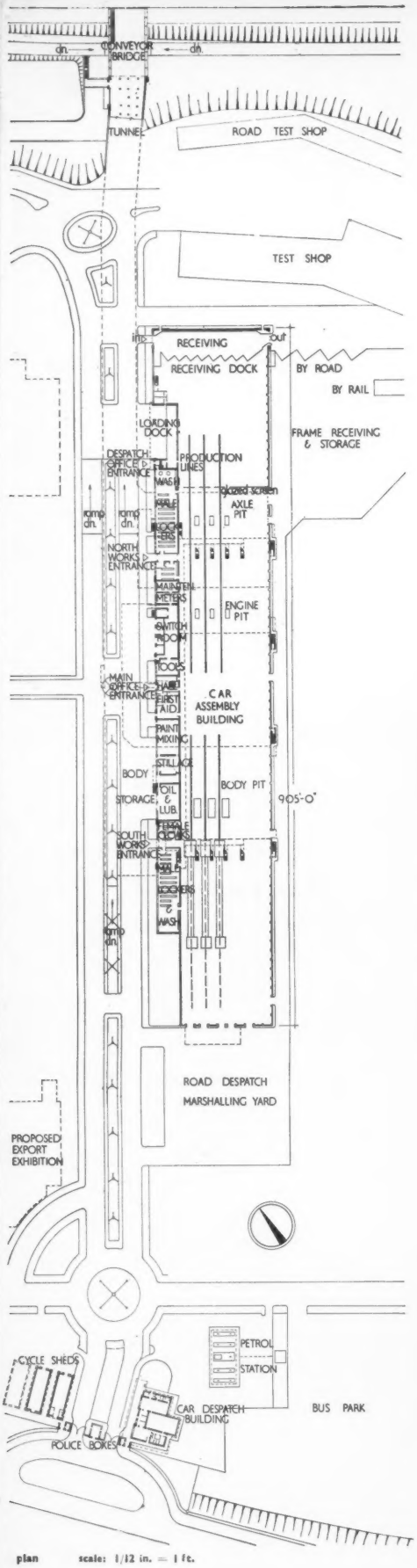
9



plan scale: 1/12 in. = 1 ft.

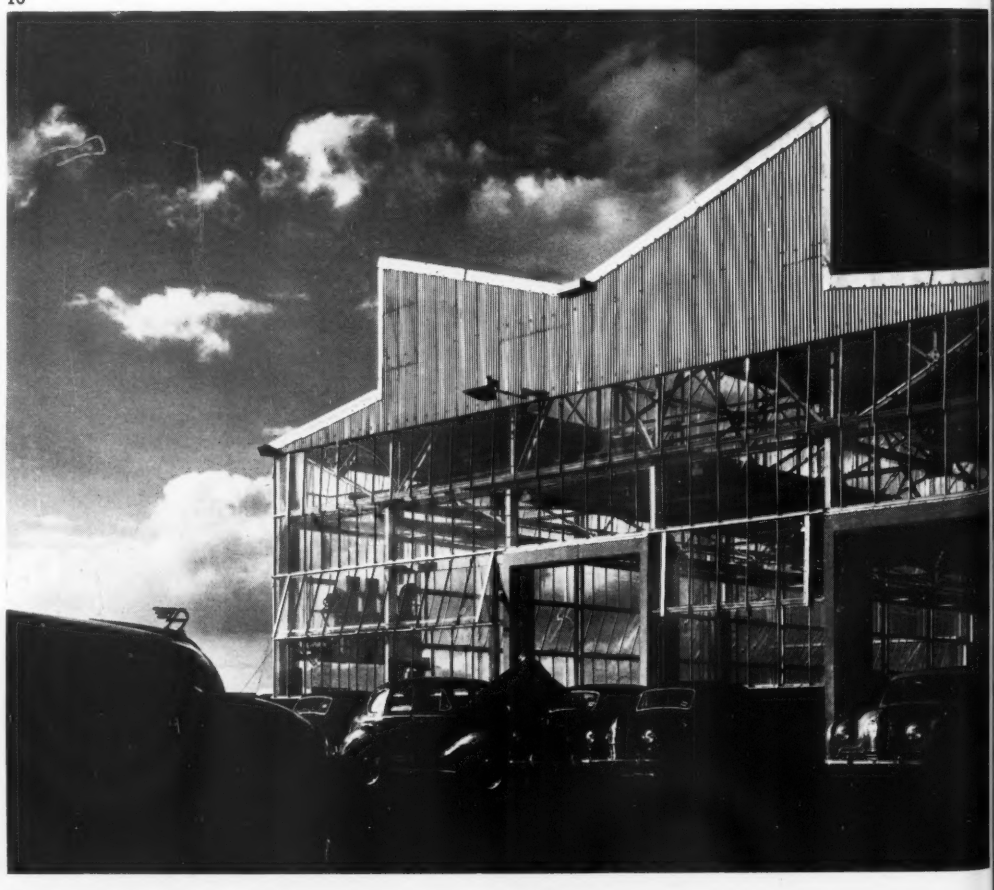
FACTORY EXTENSION AT LONGBRIDGE, BIRMINGHAM

ARCHITECT: C. HOWARD CRANE

The new car assembly building for the Austin Motor Co. has been built to receive component parts and accommodate four assembly lines, as well as offices, lavatories, locker and first-aid rooms. The length and number of assembly lines controlled the shape of the building. Possible extensions on the east side and at the south end have been allowed for. Toilets are provided over the assembly lines, with staircase and balcony access. The building is steel framed, and the external wall to the main façade is brick. Elsewhere, vertical glazing with aluminium frames. Monitor roof lighting gives maximum daylight in the works. The main assembly floor is constructed of concrete with road fabric and suspended floors and flat roofs are of reinforced concrete. The main roof is of protected metal sheeting with an insulating board lining carried on purlins. The north-west elevation is of facing bricks, with stone dressings and aluminium windows. The central doors are of armour-plate glass; elsewhere doors are steel. Internal partitions are standard steel, glazed, and internal walls are of fair faced painted brickwork. Floors are granolithic in the assembly area, thermoplastic tiles in offices and locker rooms, quarry tiles in lavatories, and terrazzo on staircases. Staircases have aluminium balustrading.

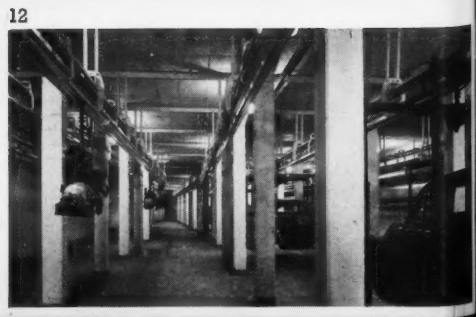
10, *the south-east elevation.* 11, *interior of the conveyor bridge looking upwards.* 12, *the conveyor tunnel under the dual carriageway.*

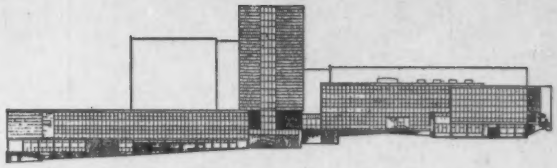
10



11

12





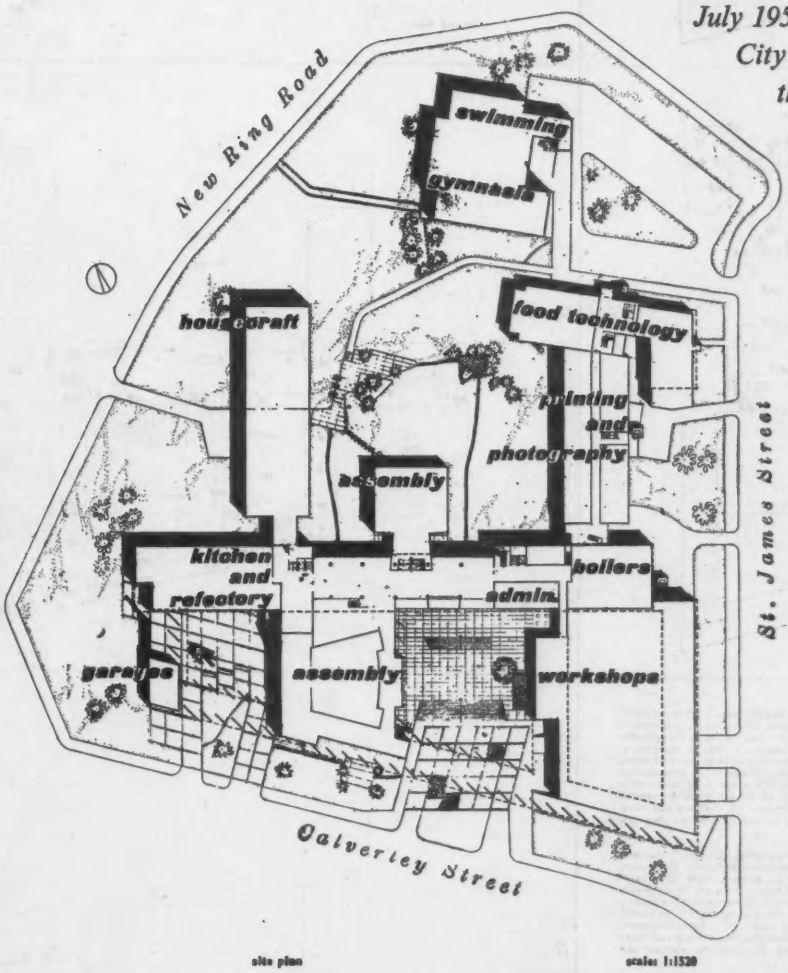
south-east elevation

LEEDS CENTRAL COLLEGES

F. R. S. YORKE, E. ROSENBERG AND C. S. MARDALL: ARCHITECTS

*in association with R. A. H. LIVETT, City Architect; associate architect, T. R. Evans; chief assistant, W. Pack.**

The architects were commissioned to design these technical colleges in July 1951. Sketch plans were approved by the City Council early this year. It is expected that work will commence on the first stage early in 1953 and that this stage will take two years to complete.



site plan scale: 1:1520

general The scheme comprises the Colleges of Technology, Art, Commerce, and Housecraft. All the colleges have been planned in detail except Housecraft for which no schedule of accommodation is yet available.

planning was influenced by five main factors:

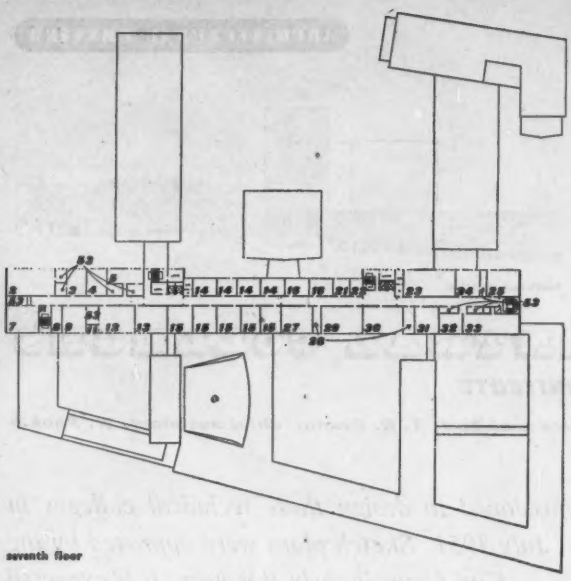
1. Possession of the site will be obtained piecemeal, the area fronting on St. James Street only being available immediately.
2. Limitations imposed by existing and proposed roads and provision of road access to the site (see plan, page 53.)
3. The correct placing of departments, particularly workshops areas.
4. Full use of the changing levels without major excavation.
5. The building lines imposed by Town Planning.

It was necessary, therefore, that the first section to be built, the workshops of the College of Technology, should be placed on that part of the site already acquired and should not extend beyond Woodhouse Lane as it is unlikely this will be diverted in the near future. Since this part of the site runs along St. James Street good road access will be available from a secondary road. It was calculated that these workshops would occupy practically all the land immediately available, and it was obvious that the remainder of the College of Technology would have to be a high building.

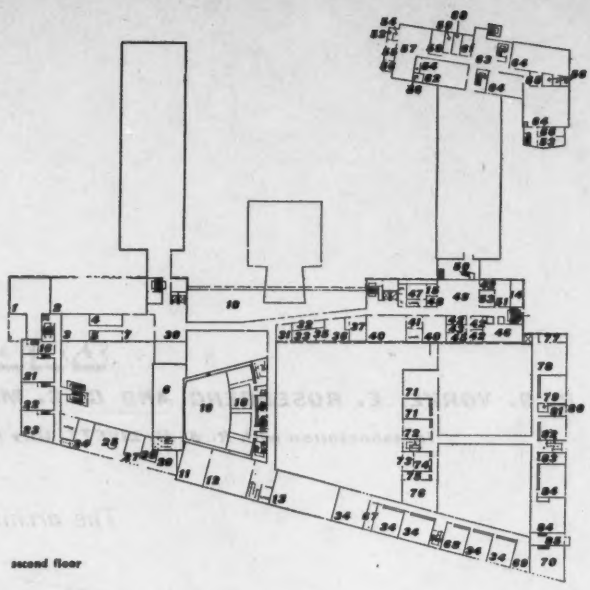
Once this decision had been made, it seemed logical to link this building with those containing the College of Commerce, and the majority of the College of Art, forming one large unit, rather than a number of scattered ones. Since the requirements for the College

[cont. on page 53

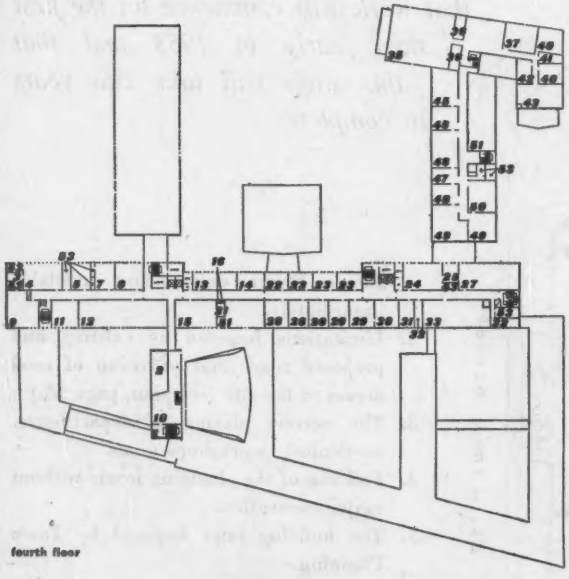
* *Appointed consultants are: structure, Clarke, Nicholls and Marcel; services, Oscar Faber and Partners; quantity surveyors, Davis, Belfield and Everest; model maker, E. J. Thring.*



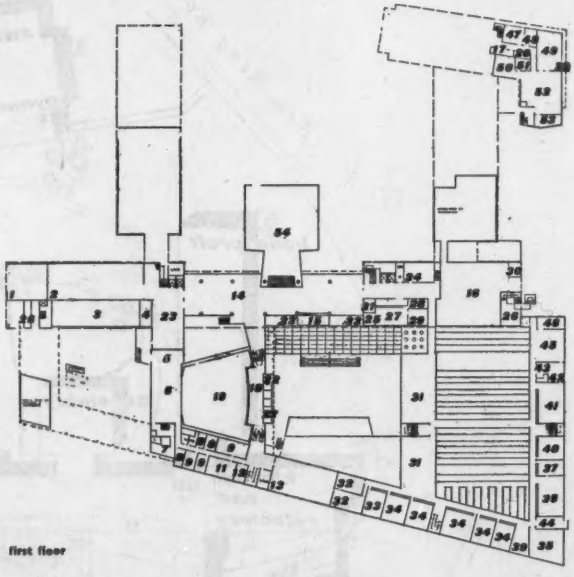
seventh floor



second floor



fourth floor



first floor

key

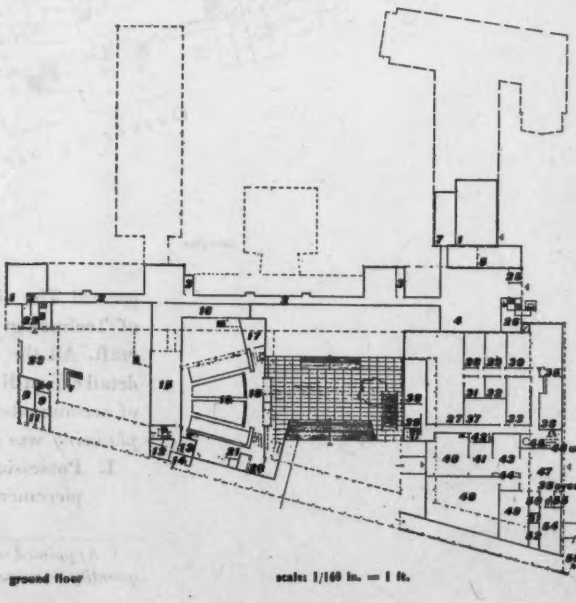
ground floor: 1, electricity sub-station. 2, main duct. 3, electrical risers. 4, boiler house. 5, fuel hoppers. 7, electrical maintenance. 8, joinery maintenance. 9, plumbing maintenance. 11, garages. 12, manual staff male lavatories. 13, supervisor's store. 14, supervisor's office. 15, central store. 16, chair and desk store. 17, male public lavatories. 18, foyer. 19, assembly hall auditorium. 20, female public lavatories. 21, coffee bar. 22, delivery store. 23, open-air sculpture area. 24, stone store. 25, dangerous goods store. 26, delivery store. 27, heavy machine shop. 28, machine tool demonstration shop. 29, tool room. 30, heat engines laboratory. 31, heat treatment shop. 32, metrology. 33, strength of materials laboratory. 35, heat engines store. 36, central mechanical engineering stores. 37, hydraulics laboratory. 38, locker room. 39, lavatory. 40, automobile shop. 41, automobile demonstration shop. 42, automobile store. 43, vehicle building shop. 44, timber store. 45,washing area, scrap stores under. 46, lavatory under stairs. 47, building yard covered. 48, brickwork shop. 49, plumbing soft metal shop. 50, plumbing materials store. 51, washing area. 52, plumbing models store. 54, plumbing hard metals shop. 55, plumbing waste room. 56, store for 600 cycles.

first floor: 2, students' refectory. 3, students' refectory kitchen. 4, kitchen yard. 5, stage workshop. 6, stage. 7, cleaners' coats female. 8, dressing rooms, 9, committee room 1. 11, student union office. 12, student union president. 13, student union social room. 14, main foyer. 15, central sales shop. 16, upper part of boiler house. 21, porter's office. 22, draught lobby. 23, exhibition area. 24, office stock room. 25, registrar. 27, general office. 28, record room. 29, typists. 30, dangerous goods store. 31, research and future development. 32, mechanical engineering technical classroom. 33, mechanical engineering drawing office. 34, building drawing office. 35, advanced carpentry and joinery. 36, carpentry and joinery. 37, mechanics' research laboratory. 40, building technical classroom. 41, building laboratory. 42, mixing room. 43, preparation room. 45, advanced building laboratory. 46, building research laboratory. 47, catering staff workroom. 48, catering staff head of department. 49, public restaurant. 50, larder. 51, vegetable store. 52, catering kitchen. 53, store. 54, assembly and examination hall.

second floor: 2, upper part of student refectory. 3, staff dining room. 4, staff service. 5, staff balcony. 7, staff lounge. 8, projection room. 9, rewind room. 10, balcony. 11, student union table tennis room. 12, student union billiard room. 13, student union social room. 14, ash store. 15, telephone exchange. 16, head of department upper part. 21, sculpture life studio part. 22, stone and wood carving part. 23, sculpture general studio part. 24, pottery casting upper part. 25, pottery room upper part. 27, pottery decoration and glazing upper part. 28, pottery drying room upper part. 29, pottery kiln room upper part. 30, exhibition area upper gallery. 31, vice-principal's room. 32, waiting room. 33, secretaries' office. 35, principal's lavatory. 36, principal's room. 37, board room. 40, staff room male. 41, staff room coats. 42, dark room. 43, photographic finishing room. 45, photographic laboratory. 46, photographic studio. 47, staff room female. 48, women's rest room. 49, printing department lockers. 50, circulation area. 51, classroom printing department. 52, lecturer's room. 54, wash-up area. 55, projection room rear. 56, oven. 57, lower part of lecture theatre 300 seats. 58, male students' changing room. 59, male students' lavatories. 60, female students' changing room. 61, female students' lavatories. 62, 100-seat lecture theatre. 63, entrance hall. 64, bakery 1. 65, proving room. 66, spare. 68, building materials display. 69, building planroom. 70, upper part of advanced carpentry and joinery. 71, mechanical engineering drawing office. 72, building staff workroom. 73, head of mechanical engineering department. 74, mechanical engineering staff workroom. 75, mechanical engineering printing room. 76, mechanical engineering drawing office. 77, welding store. 78, welding shop. 79, dental technicians. 80, dental technicians' store. 81, metallography. 82, metallurgy. 83, head of building dept. 84, advanced mechanics laboratory. 85, tool store for carpentry and joinery.

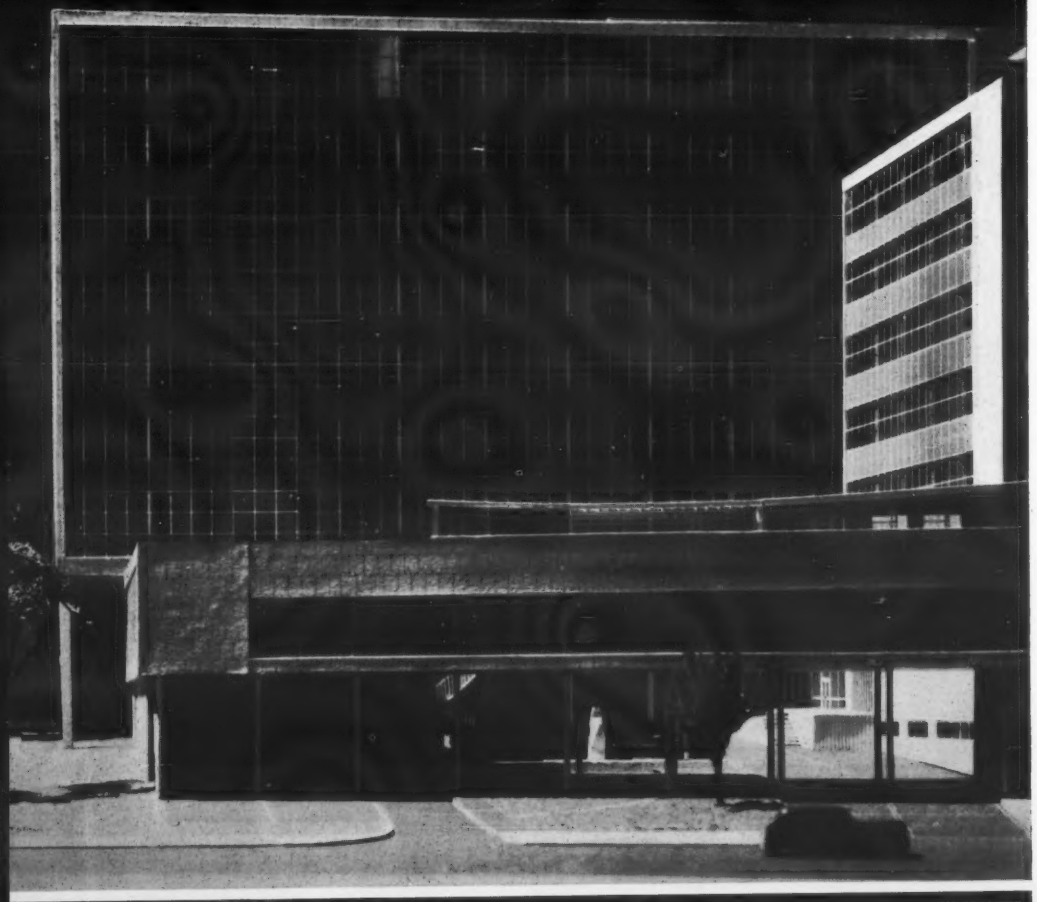
fourth floor: 2, upper part to common room. 3, strong room. 4, jewelry. 5, enamelling and pickling room. 7, polishing machine room. 8, paperhanging room. 9, metal workshop. 11, paperhanging room. 12, painting and decoration main workshop. 13, typing room. 14, office machinery. 15, lecture room. 16, mock telephones. 21, projection room. 22, mechanical engineering classroom. 23, printing and photography classroom. 24, dressmaking room. 25, garment fitting room. 27, tailoring room. 28, printing classroom. 29, clothing trades classroom. 30, clothing trades lecture. 31, general store clothing. 32, garment store. 33, pattern drafting room women. 35, 300-seat lecture theatre. 36, public cost rooms. 37, laboratory. 40, classroom. 41, head of bakery department. 42, staff workroom. 43, cake decoration. 45, layout room. 46, case room. 47, monotype casting. 48, monotype keyboard. 49, letterpress. 50, linotype. 51, research and development.

seventh floor: 2, lettering, writing and illumination studio. 3, lithography and engraving. 4, illustration studio. 5, engraving gallery. 7, still life room. 8, general store. 9, workshop for materials. 11, model's room. 12, life room for fashion drawing. 13, bookbinding. 14, language classroom. 15, language classroom—soundproofed. 16, chemistry classroom. 21, staff workroom. 22, head of chemistry department. 23, elementary electrical laboratory. 24, electronics laboratory. 25, radio workshop. 27, biology and bacteriology lecture. 28, preparation room. 29, chemistry lecture. 30, biology laboratory. 31, bacteriology laboratory. 32, electrical engineering technical classroom. 33, telecommunications laboratory.



ground floor

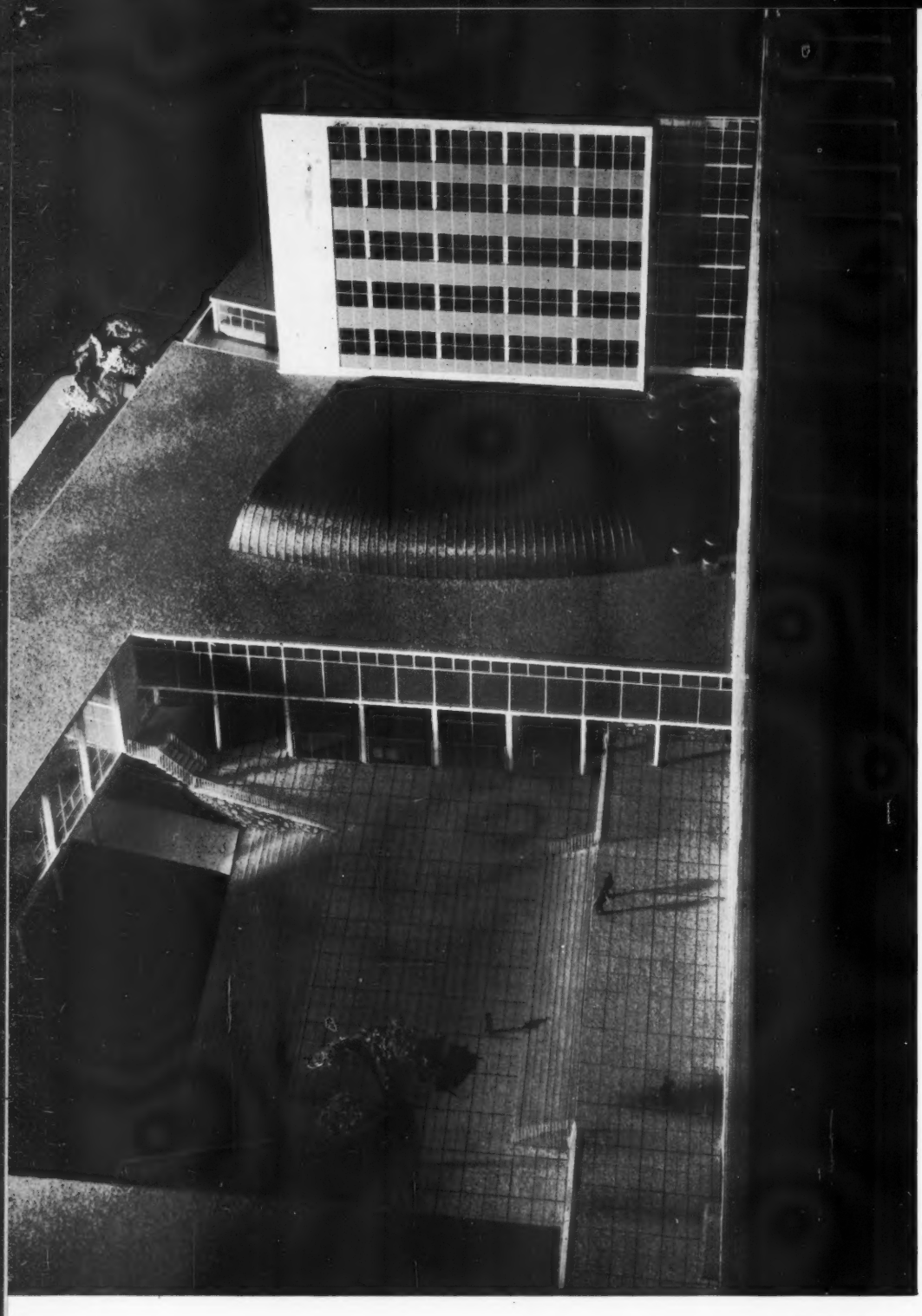
scale: 1/160 in. = 1 ft.



LEEDS CENTRAL COLLEGES

The north-western end of the main block seen from Calverley Street with the rear of the assembly hall block standing at right angles to it on the extreme right. The low structure in the foreground which contains garages at ground floor level and pottery studios above forms the entrance to the western or sculpture courtyard which has an open-air sculpture area to the north around which are the sculpture studios of the college of art. 2, *the college seen from the north. On the left is the independent gymnasia and swimming-pool block, the four-storey wing projecting from the tall block houses the college of housecraft.* 3, *view from the projected ring road.* 4, *the gymnasia and swimming-pool block from the east.*

1 | 3
2 | 4

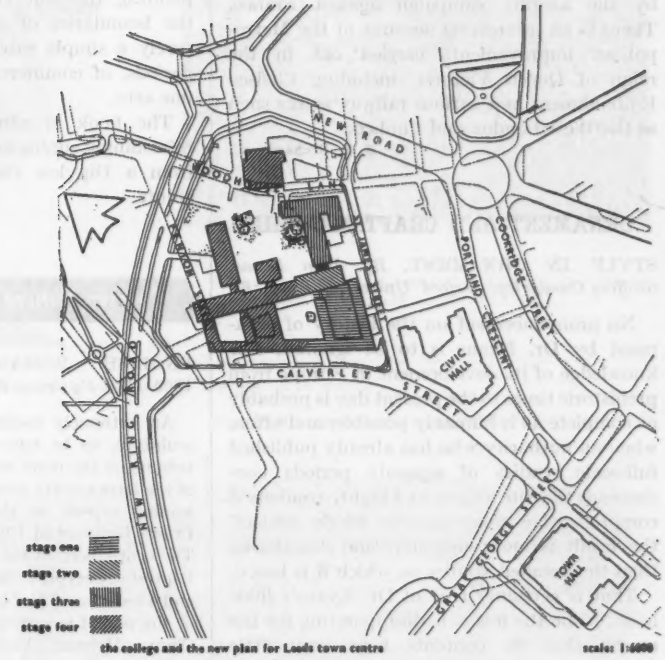


5

LEEDS CENTRAL COLLEGES

6

The main entrance courtyard showing the assembly hall. This courtyard is entered from Calverley Street, below the glass-walled students' common room. Administration offices are situated on the ground floor of the tall block near the entrance. **6**, *view into the courtyard from Calverley Street.*



the college and the new plan for Leeds town centre — scale: 1:4800

cont. from page 49]

of Housecraft were not known, it was decided to make a separate wing of this, projecting north and getting east and west light.

The aspect of the teaching rooms was discussed both with the Ministry of Education and Heads of Colleges and all agreed that this, except with special rooms, was unimportant, and that it would be no disadvantage for this main block to face north and south.

The large main block will be of nine floors, set along the contours at right angles to St. James Street. Since the architects considered that such a large building might be inhuman in scale if standing alone, they planned the Students' Union accommodation and the main central assembly hall and parts of the College of Art to continue the lower buildings of the workshops block as a perimeter facing on to Calverley Street. These buildings will be three storeys in height with openings at ground floor level forming spacious approaches to the tall block. It was felt that the principal entrance to the colleges should be from Calverley Street as this is already in existence and will be, at least for some years, the main road leading up from the centre of the city.

The single concourse for all four colleges allows direct access to the rooms that are in general use (except the gymnasia and swimming pool) from all departments, thus helping to create a community life more akin to a university.

The assembly hall has had to be designed for multiple uses: as an examination hall, as a theatre, for dances and for exhibitions. It was finally agreed that it should be artificially lit and ventilated and should have as large an area as possible of flat floor with a balcony to give a total accommodation on both floors of 1,000 when used as a theatre.

The students' refectory is on the ground floor opening from the concourse and near the assembly hall. Above the kitchens are staff dining room and lounge, overlooking the students' refectory, and facing south over the Sculpture Court. Students' common rooms (not associated with the union), and the library, occupy the tall building above the stage and access to them is gained on various levels from the main block.

The gymnasia and swimming pool have been combined in one building isolated from the rest of the colleges so that the noise from them shall not interfere with teaching.

college of technology This is the largest and most complex of the four colleges. It has been divided into noisy, neutral and quiet zones, but apart from this classification, each department is self-contained. The departments of building and mechanical engineering which will form the first stage of building occupy the lower corner of the site contained by Calverley and St. James Streets. This area has already been acquired.

The department of printing occupies a three-storey building projecting northwards from the main block and beyond it a cross wing houses the department of food technology. This latter department contains a public restaurant which opens at street level from St. James Street and a large lecture hall which will also be used by the public. A separate entrance has therefore been provided with car parking facilities adjacent to it.

college of commerce This is the smallest and least complex college and occupies a quiet zone centrally in the main block with vertical circulation by lifts from the concourse. The commodity and geography rooms, which must be 15 feet high and have very good lighting, are on the top floor facing north with subsidiary lighting at clerestory level from the south. A roof garden is provided facing south from which meteorological observations can be made.

college of art This will be housed partly in the main block, with the large life studios on the top floor facing north, and partly in the lower perimeter building surrounding the Sculpture Court. Round this court and associated with it are the sculpture and pottery departments.

college of housecraft The overall area of this college is all that has at present been decided: it will occupy four floors with access on each floor from the main block vertical circulation.

construction A comparison of cost and availability of materials has led the architects to recommend that the bulk of the buildings be constructed in reinforced concrete. Further study will be necessary before finally deciding detailed construction of the various parts. Because the buildings occupy a prominent position in the civic centre of Leeds, special care must be taken in selecting the external facing materials. It is recommended that if finances permit the large areas of wall without windows and the perimeter buildings should be clad in Portland stone, and that certain lower walls forming the base and retaining walls should be constructed in random York stone walling. The main glazed walls will be formed of light concrete mullions at 3′ 10″ centres supporting timber windows and infilling panels of wired cast glass backed by a cavity and a permanently coloured facing.

Due to the polluted atmospheric conditions in Leeds it has been found necessary to omit the roof lights to the main workshop block and substitute complete artificial lighting and ventilation. There will be fixed glazing on three sides of the perimeter of the workshops and glazing between each shop.

The name miscellany implies, of course, an architectural miscellany—one that will include subjects which, though marginal to architecture, are nevertheless vital to it.

BOOKS

THE ENGLISH INVALIDES

THE ROYAL HOSPITAL, CHELSEA. *By Captain C. G. T. Dean, MBE. Hutchinson & Co.* 21*s.*

It is somewhat remarkable that no full history of the Royal Hospital has hitherto been published, yet the references to Wren's masterpiece are numerous and the building received the praise of Thomas Carlyle a century ago. The present book, handsomely produced and appropriately illustrated, is one which will appeal to a wide circle, and not least to those architects who are interested in the buildings and events of other days.

The scope of the book is wide for it deals with the welfare of invalid soldiers and shows how it became necessary after the Civil Wars to provide for a vast number of incapacitated men of both factions. In addition, the Dutch wars and the fighting in Tangiers increased the number of men no longer fit for military service. Hence the necessity for a public foundation in this country.

The Hotel Royale des Invalides at Paris, built by Louis XIV in 1670, suggested a similar military hospital in England. The Duke of Monmouth, who inspected the French Hospital in 1672, brought an enthralling account to the King of the arrangements. But it was not until 1682 that the project for a similar building in England received further consideration. The first reference to active planning occurs in this year, when John Evelyn accompanied Sir Stephen Fox and Sir Christopher Wren to obtain the approval of the Archbishop of Canterbury to the scheme. In August of the same year the foundations of the hospital were begun. From now on the building took eight years to complete; the expenditure being approximately £50,000, a sum far exceeding Wren's original estimate. Throughout the progress of the works Wren followed his usual practice of modifying the design to suit conditions as they arose. Although various enlargements were suggested from time to time, the building when finished was as Sir Christopher Wren had first designed it. All this is described very fully by Captain Dean. Those who assisted Wren in the carrying out of the scheme, and the members of the Committee set up to see it through, are clearly portrayed. By this method the character of the period can be grasped.

The principal features of Chelsea Hospital, namely, the Chapel, the Great Hall, the Wards and Officers' apartments, are well known. The Lighthorse and the Infirmary quarters are now dealt with, and there is also an interesting chapter on the formal gardens with descriptions in detail of minor features.

Having been founded so successfully by the Stuarts, Chelsea Hospital entered upon 250 years of usefulness. Thomas Malton made drawings of the buildings which remained untouched until disturbed by enemy action in the late war. These drawings at the end of the eighteenth century show the massing almost unaltered. Later buildings were added by Sir John Soane in the early nineteenth century. These additions were necessitated by the lengthy campaign against France. There is an interesting account of the Metropolitan improvements carried out in the reign of Queen Victoria, including Chelsea Embankment and various railway works such as the West London and Pimlico.

A. E. Richardson

ORNAMENT AND CRAFTSMANSHIP

STYLE IN ORNAMENT. *By Joan Evans. Geoffrey Cumberlege. Oxford University Press.* 6*s.*

No pronouncement on the history of ornament by Dr. Evans is to be ignored. Her knowledge of its development in Europe from prehistoric times to the present day is probably as complete as is humanly possible; and often, when an authority who has already published full-scale studies of separate periods condescends to write a short and highly-condensed comprehensive essay on the whole subject, the result is more suggestive and stimulating than the detailed studies on which it is based.

That is certainly true of Dr. Evans's little book. None the less it is disappointing for the reason that its contents bear very little relation to its title. In pattern, as she notes in her Preface, one finds 'that stamp of an age, which is all the more important for being neither conceived nor expressible in words.' Yet, though words cannot express it, words can at least indicate how, and within what limits, the Zeitgeist can find its visual equivalent in ornament. That is not quite what she has attempted in her essay. She has rather examined the derivations of ornamental motives and, in particular, the debt that ornament owes to craftsmanship. And in doing so she has limited her definition of pattern to 'an ornamentation of surface which affects neither shape nor function.' This excludes the decorative effect of stitching that binds leather surfaces together, but includes that of their non-functional derivatives in the clay pots that replaced the leather containers.

However, it would be unintelligent to cavil at a stimulating essay merely because it does not fit its title. Dr. Evans has much to say about the influence of various craft-devices that arise out of one medium on the purely ornamental effect of works of decorative art executed in other media. She points out, for example, the metallic origin of the honeysuckle ornaments of Athenian amphoræ, the architectural origin of Gothic ornament, the overflow of forms evolved by Celtic penmanship into the carved stone crosses of Ireland. Here one begins to suspect her of special pleading. What proof has she that strapwork, which is by no means characteristically graphic, needed the spur of penmanship before it could be accepted by the sculptors of the period? And it is surely by no means certain that the carver of a romanesque capital owed his imaginative or creative power to the study of initials in illuminated psalters. The Zeitgeist does not work quite as simply as that. Certainly designs on majolica dishes were copied from contemporary engravings (in pointing this out Dr. Evans strays outside the boundaries of her subject), but that is surely a simple case, common enough at all periods, of commercial art stealing from the fine arts.

The book is admirably illustrated, with refreshingly unhackneyed examples ranging from a Dipylon vase to a William Morris chintz.

Eric Newton

Shorter Notices

ENGLISH ROMANESQUE SCULPTURE, 1066–1140. *By George Zarnecki. A. Tiranti.* 7*s.* 6*d.*

An extremely useful survey of early Norman sculpture, to be followed soon by a companion volume on the more rewarding works of sculpture of the later twelfth century. Dr. Zarnecki, now the leading expert on the subject, ends with the Prior's Gateway at Ely and the Chichester reliefs. The centrepiece of the book is the capitals of the Canterbury crypt. With the exception of Chichester and Canterbury, the quality of English sculpture of the period is surprisingly low, if one thinks of Cluny, Moissac, Vézelay and Autun. But a collection of the surviving material was necessary all the same and Dr. Zarnecki's book is one step towards it. One is grateful to the publisher for the 80 illustrations, although even that is, of course, not enough. There must, for instance, be at least 1,000 surviving Norman fonts. Why were fonts preserved so much more faithfully than anything else, one wonders? Dr. Zarnecki does not answer this question. Nor does he, incidentally, tell the reader as much of iconography and of foreign sources as he evidently knows. That is a pity; for such information could only have increased the popular appeal on which this remarkably low-priced book evidently counts. **N.P.**

PLYWOODS. *By A. D. Wood and T. G. Linn. W. & A. K. Johnston Ltd. 2nd Edition* 1950. 547 *pp. Illustrated.* 40*s.*

The original edition of this book, published in 1942, provided the only comprehensive work on the subject of plywood. It was sufficiently full of technical information to be valuable to the specialist, but succeeded at the same time in being useful to architects as a reference and also of more than ordinary attraction for the interested layman.

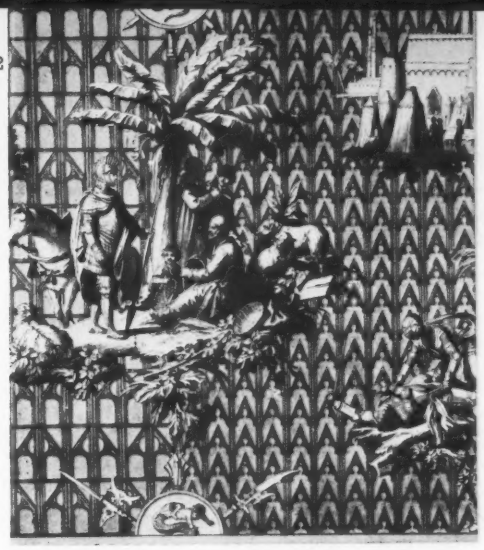
Although plywood is by no means a new industry, there have been considerable advances in technique since 1942 and this up-to-date edition is, therefore, very welcome. All aspects, from history, through manufacture, descriptions of woods and uses, to statistical data on wartime production are covered and there is a good index.

Production is on a lavish scale with good paper and reasonably full illustration by photographs and diagrams, though architects will be sorry there are not more working details to illustrate the modern techniques of construction which have developed with the growing use of plywood.

C.C.H.

1 **tyle in ornament** *(see facing page)*

2

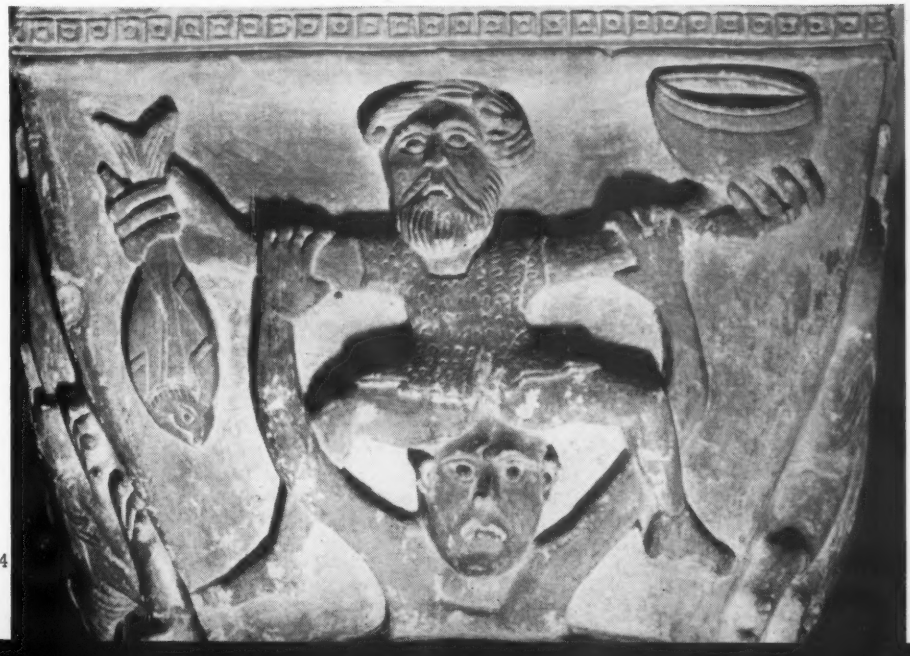


1, detail of the Sarcophagus of Carlo Marsuppini by Desiderio da Settignano before 1455. *2, design for* Toile de Jouy *in the Gothic taste, c.* 1817.

3, font in St. Mary's, Luppitt, Devon, early twelfth century. 4, capital in the crypt of Canterbury Cathedral.

english romanesque sculpture *(see facing page)*

3



4

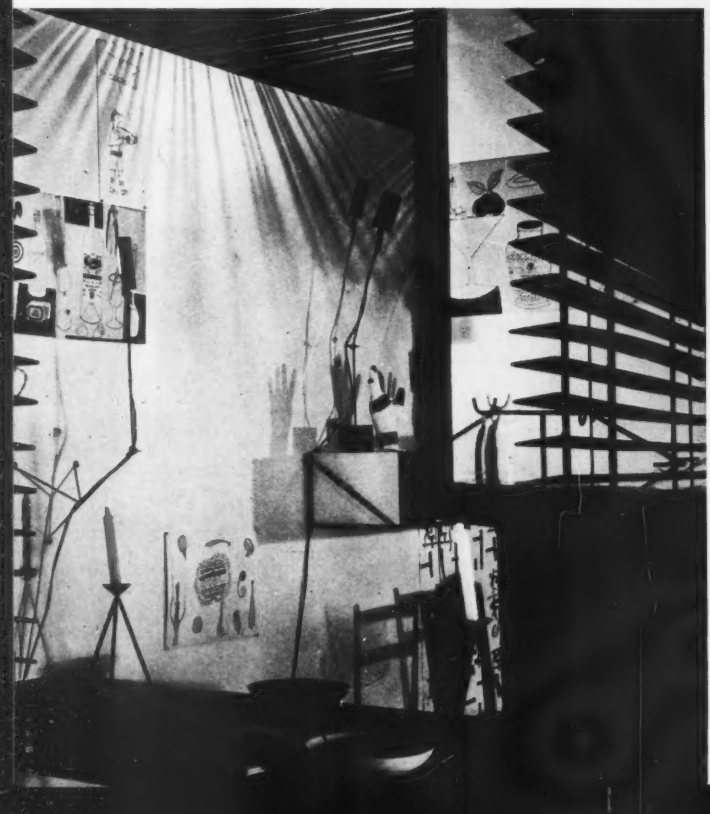
DESIGN REVIEW

TERENCE CONRAN AT SIMPSON'S

That a big clothes store should give space to a one-man show by a young furniture designer might seem a startling innovation; not so much perhaps when it is Simpson's of Piccadilly with its tradition of interest in modern design. The exhibition was called *Ideas and Objects for the Home* and was held in March. It added a new name to the short list of British furniture designers who go at their work with intelligence and taste. Instigated by Simpson's art director, Miss Natasha Kroll (who had already commissioned from this designer a number of pleasant display units stationed around the building), it consisted of fabrics and prototype furniture by Terence Conran, arranged in a room cunningly mocked-up with a couple of venetian blinds and a bamboo ceiling (1). None of the furniture gives the impression that the designer thinks himself rather a devil for being so advanced, or that he would be just as pleased if his sideboard was converted for use as a radiogram cabinet. In other words, no timidity and no indifference: those twin blights of our

1, view of a corner of the exhibition room showing one end of vertical feature for the display of objects and drawings. The low table with a metal frame and slate slab on which the head is standing costs £7 15*s. The plaster container on a steel stand is for the display of fruit, gourds, etc.*

furniture designers. Conran evidently cares about what he is doing and his reward is a remarkable unity of style. This is not to say that he is without influences—Steinberg, Charles Eames, Paolo Chesa and Eduardo Paolozzi, diverse as they are, have all

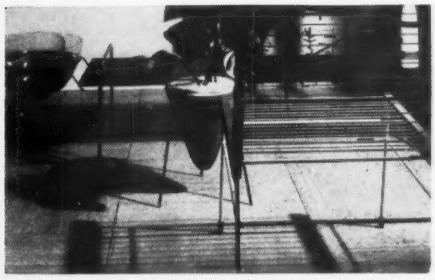


3,4 ***Terence Conran at Simpson's*** *2, top, looking through the vertical feature. The head is mounted on a welded steel tripod. The wooden cane-seated chair costs £5; the wallpaper, hand-printed to order, £2 a piece. The painted plaster hand was cast in a rubber glove. 3, the metal candlesticks cost 9s. each; the wall-lamp £1 10s. and the reading-lamp (metal rod in a marble-cube base) £3 15s. 4, wall hooks in metal, about £2; metal stools with cane tops, £2 4s. 6d.; the table with metal legs is made only to individual order; 'Mobile' fabric, Morton Sundour, £1 8s. a yard. The furniture is obtainable from Terence Conran.*

evidently been scrutinized with the fondest attention. Considering that Conran was born in 1931, this is probably inevitable, and in view of the influences he has chosen it has certainly proved rewarding.

Apart from a very light and elegant chair in a traditional manner (2), Conran's work represents the same sort of break with conventional craftsmanship in furniture that Turnbull's and Paolozzi's does with the tradition of stone-cutting in sculpture. Conran likes, as it were, drawing his furniture in space, using the fewest possible lines to support planes of wood or slate. In nearly all the pieces there is a careful opposition of line and mass, especially in the pot-holders (originally commissioned by the Architectural Review) and the reading lights, which are fine jointed rods set in marble cubes (3 and 5). As far as the forms at any rate are concerned, the emphasis is on economy; however, from the point of view of use, the furniture sometimes has a rather arbitrary look—as if it had not been sufficiently well worked out on a basis of human physical needs and proportions.

Pushed almost to the disappearing point



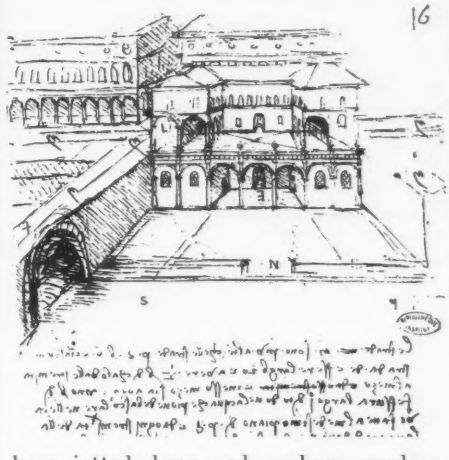
5, a photograph which stresses the transparent quality of Conran's furniture. The large pot-holder is of natural earthenware glazed inside, set in a metal frame, £1 10s. The chair of a metal and wood frame with cords is about £7.

as it is, one might think that the next step after this is the Bauhaus idea of a compressed-air chair, but Conran isn't that kind of puritan. The strict economy has an elegance which prevents it becoming arid, particularly since it is often combined with bright, glossy colours. The degree to which all these things court transparency is reminiscent of a good deal of modern architecture: but the kind of transparency Conran aims at needs defining. He is not concerned only with getting rid of things, he seems concerned also to add something. His idea seems to be to make transparency not only reveal more space, but to complicate it in a new way. As these photographs by Nigel Henderson show, the furniture can be used to landscape an interior, to provide vistas, delayed-action effects, different intensities of interest, and so on. The frontispiece, page 2, shows the sort of effect, illusory and enchanting, that can be achieved. **Douglas Newton**

TOWN PLANNING

PIONEER OF THE PEDESTRIAN NETWORK

Another version of the proposal put forward on pages 20–29 to segregate different kinds of traffic may be found at the Leonardo exhibition at the Royal Academy. The drawing reproduced below (Institut de France, Codex B, 16r.) is of Leonardo's suggested two-level town. He explains that the roads *in* are six braccia higher than the roads *p.s.* and he adds 'Understand that he who would go through the whole place, by the high-level streets, can use them for this purpose, and he who would go by the low level can do the same. By the high streets vehicles and similar objects should circulate, but they are exclusively for the use of gentlemen (*anzi, siano solamente pu li gentili uomini*). The carts and burdens for the use and convenience of the inhabitants have to go by the low roads. One house must have its back to the other, leaving the low streets between them.' In another drawing in the same codex (of *c.* 1488-89) Leonardo proposes canals below ground instead of the low-level service roads. They look exactly like tubes, and are indeed tubes though not for trains but for barges and gondolas. Nothing came of the proposals, but one can assume that once they had



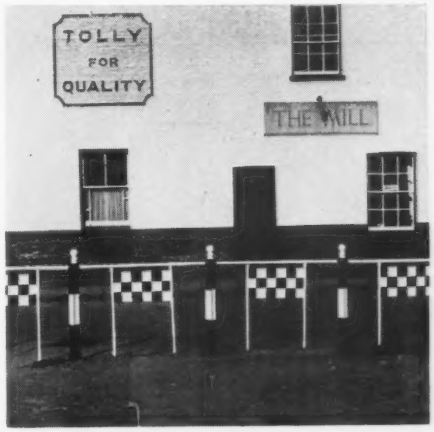
been jotted down and, perhaps, made a topic of his famously brilliant conversation, Leonardo lost interest in them, as he lost interest in paintings before they were completed. Lack of patience was his one great shortcoming. Time and again one is dazzled by the clarity of his vision and seeks in vain for repercussions. Nothing of the kind seen in this drawing was carried out in Renaissance Italy or France, in spite of the obvious virtues of the idea. And hardly anything of the kind is being carried out now. **N.P.**

HIGHWAY CODE

A CAMBRIDGE MASTERPIECE

Black-and-white, geometrically applied, is one of the most frequent motifs in roadside trim, and one of the most effective. Rarely, however, is it employed except in routine dosages. Here is an example of the witty use of the technique.

The place is Cambridge, opposite The Mill public house, as the photograph here



shows. The mill from which the pub took its name was destroyed many years ago, but the platform on which it stood remains, to form a bridge over the old mill-race; on either side of this bridge there is a low wall, forming a seat to which the customers of the pub take their beer. The whole thing, with its views of the river and the boatyards, is as pleasant a pedestrian (or sedentarian*) precinct as one could well wish for; but, as always in these cases, there is the problem of how to keep it pedestrian (or sedentarian). Not only is there the Cambridge bicycle, a weapon that can penetrate all but the heaviest armour: the end of the precinct runs along the very edge of the road, without any footwalk in between. First an iron railing was put up; by itself, however, this proved to be insufficient, if not positively dangerous, by night. And then someone hit upon the chess-board idea. With what sensibility, what sureness of touch, it has been carried out! Remark how, within the overall uniformity necessary to any fence, a whole series of different yet contrapuntal rhythms—set up by the alternation and interplay of thick and thin, of substance and emptiness, of square and oblong, and of course of black-and-white—supplies liveliness and variety

* This term, though by no means obscure, will be defined in a future note.

though. Whoever was responsible, the townscape of Cambridge has gained something which would not have looked out of place on the South Bank, a work of art which though anonymous should not remain unknown—or, it may be added, unemulated. R.M.

WIRESCAPE

THE CAGE EXTENDS

So far, as was pointed out in last December's REVIEW, *Britain has been more fortunate than most countries in avoiding (except in one or two areas) that variety of wirescape which blights so much of Europe and America—railway wirescape. But, as was also pointed out, British Railways are going to see to it that this happy state of affairs shall not continue.* The first stage of the Manchester–Sheffield–Wath electrification scheme, which is to use overhead wires throughout its 75 miles, has now been opened. It extends from Wath to Dunford Bridge; the second stage to be opened will be from Dunford to Manchester (London Road), the third from Sheffield to Barnsley Junction, and the fourth from Fairfield Junction to Manchester (Central); it is expected that the whole scheme will be complete by the end of 1953. The photograph below, of a coal train at Penistone, shows the effect of the form of electrification chosen. In case anyone should imagine that the horror of it is here increased by the fact that this is a junction, it should be mentioned that throughout the whole route, town and country, the wires are supported by steel bridge structures, such as are seen in the photograph, at a normal spacing of seventy yards, and that this spacing (to quote the BR handout) 'is reduced as necessary on curves.' Needless to say, British Railways produce plenty of 'practical' arguments in favour of this form of electrification. The visual argument against it is no less overwhelming because it cannot be stated in terms of tons of steel saved. I. de W.

CRITICISM

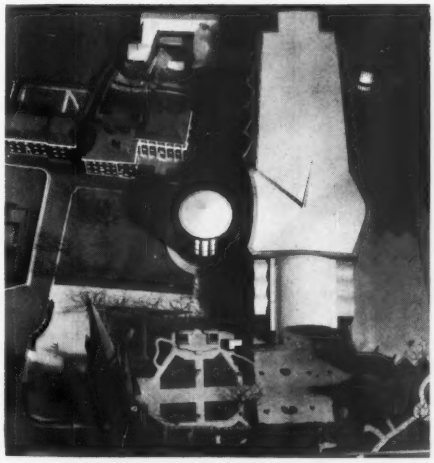
RETURN TO COVENTRY

The inclusion of a model of Basil Spence's design for Coventry Cathedral in the Royal Academy summer exhibition provides the opportunity to add some more observations to those made in the January issue of the REVIEW, *and to comment on the most recent developments.* It was emphasized in January that the design is still in an evolutionary stage. In any project of this significance, and especially in one with so

many extra-functional implications, the design can only grow gradually as the architect works on it, modifying or elaborating his initial conception.

The January article reported and illustrated some of the changes that had already been made since the competition stage; notably the redesigning of the (liturgical) west porch, 2 and 3. The roof had been raised in height to the same level as the nave vault, and the blank wall which previously rose above the porch replaced by a glass screen dividing the interior of the porch from the nave. A number of further changes have been made since, some in time to be shown on the model (and therefore illustrated herewith); others since the model was put in hand.

These changes include the elimination of the strong base, as shown on the model, 3, which instead of being rusticated is to be battered, possibly with a change of texture; the redesigning of the Guild Chapel at the south-east corner; the redesigning of the exterior of the east end so that its character conforms more closely to that of the baptistery; the reshaping of the whole plan to give a parabolic curve to the outer walls; the redesigning of the vault. By far the most important are the last two, which are also interdependent. The new parabolic outline on plan (not shown in the model) narrowing from (liturgical) west to east is, in a sense, a substitute for the gradual lowering of the height of the roof from west to east, originally proposed, since it is intended to perform the same role of exaggerating the length and intensifying the drama of the long view down the cathedral from the western entrance. The ridge of the roof is now to be level instead of descending, a necessary change because, as the earlier criticism pointed out, many vaulting difficulties would have been encountered when the attempt was made to work out in detail the lines of arches and springings with each successive vaulting compartment on a lower level than the one alongside it.



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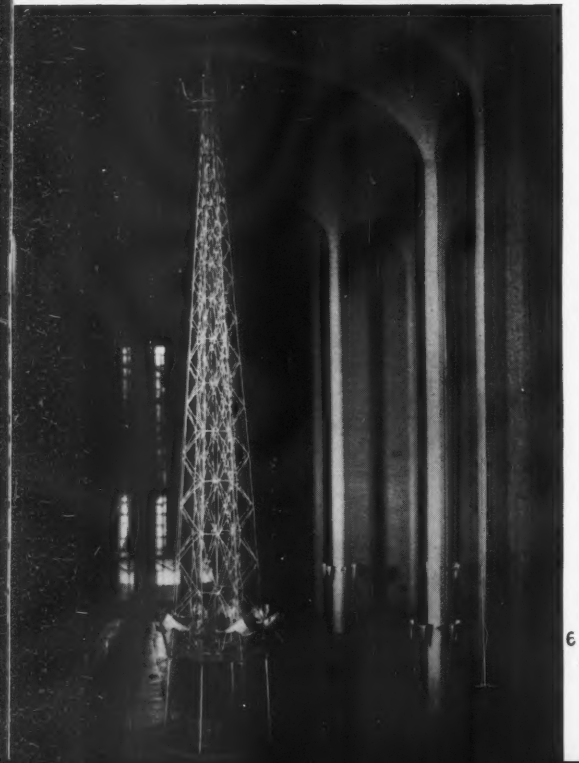


6

To what extent do these changes meet the other criticisms made? The most far-reaching criticism was concerned with the basically ambiguous nature of the design: in part a dynamic concrete structure; in part a static masonry structure. The shell concrete vault with its slender supports, 6, belonged, it was felt, to so different a conception of architecture from that of the solid masonry walls, pierced with small windows, that the two could hardly be reconciled as elements of the same design. It was conceded, however, that there was no reason why stone should not be used for the walls if they were frankly doing no more than protecting a separately articulated concrete roof-structure. What was criticized was the use of the stone walls to share with the reinforced concrete columns the task of supporting the roof, and the resulting impression from outside, 3, that the cathedral was a solid stone building, traditional in everything but its style of ornament.

In the new design the vault has been completely separated structurally from the stone walls. The basic criticism has to this extent been met. The walls now play the more logical part of independent pierced screens protecting a delicate piece of concrete engineering. The question remains, however, whether this necessary distinction of roles can be sufficiently expressed externally; that is, whether the outside of the building does not still fail, through its apparent, and somewhat heavy, orthodoxy of construction, to express the idea of a vast empty floor-space lightly roofed in shell-concrete. A dynamic juggling with space is still modern architecture's main potential contribution to the revitalization of the monumental idiom, and the whole conception of the new Coventry Cathedral, regarded as one three-dimensional entity, does not yet seem to have broken free from the orthodoxies of old-fashioned masonry construction and the type of space-organization that went with it. On the other hand, as the design develops the integration of art and architecture in the interior becomes more and more promising. The prospect that the great tapestry which fills the east end, 5, and to which the lines of sight are all directed, is to be designed by Mr. Graham Sutherland is encouraging in itself.

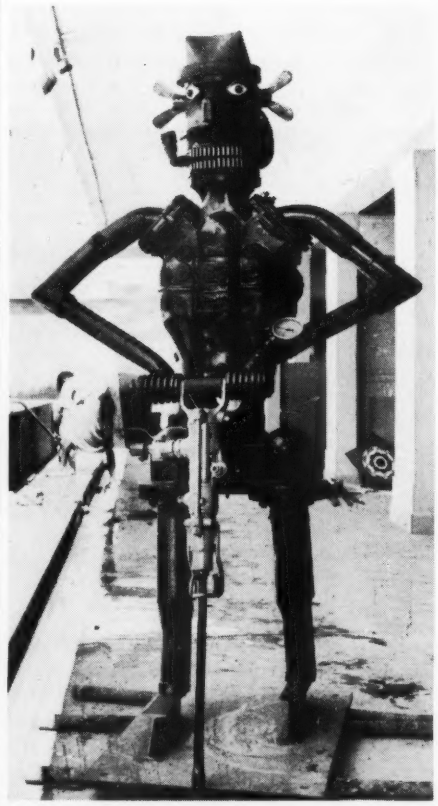
The Academy model has the special virtue of including the entourage of the cathedral, 1 and 4, as well as the building, showing its relationship to Holy Trinity Church, to the surviving Georgian houses that will now look inwards towards a cathedral close after the traditional pattern and to the lie of the land generally. By doing so it will itself answer a number of criticisms raised when only the competition drawings were available to illustrate the design.

J. M. Richards

POPULAR ART

MACHINE AGE SCULPTURE

People sometimes talk as if popular art went out when mechanization took command. So far is this from being true that actual pieces of machinery may provide the material for works of popular art. Here is an example from a country whose Industrial Revolution is still in progress—Ceylon. It was made by workers in a factory, attached to the Ceylon Ministry of Works and Transport, which carries out the metal-work for all government undertakings in the island. The men responsible for it were



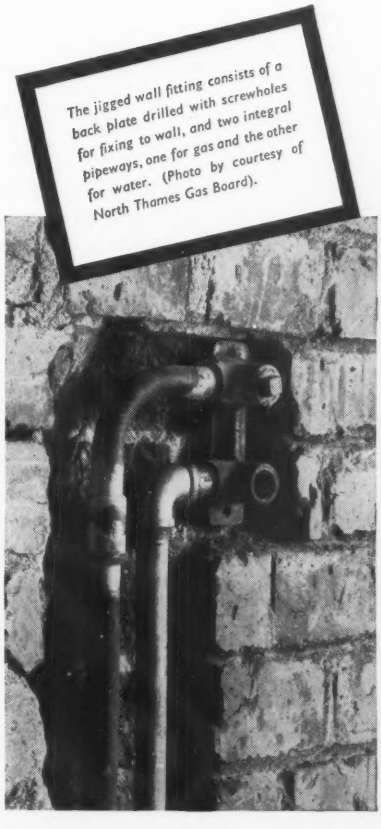
working at the time on a section of the Colombo Exhibition (to be illustrated next month) designed to explain the work of the Ministry to which their factory is attached. It was entirely their own idea, and all the parts used came out of the factory stock: not a single one was specially manufactured.

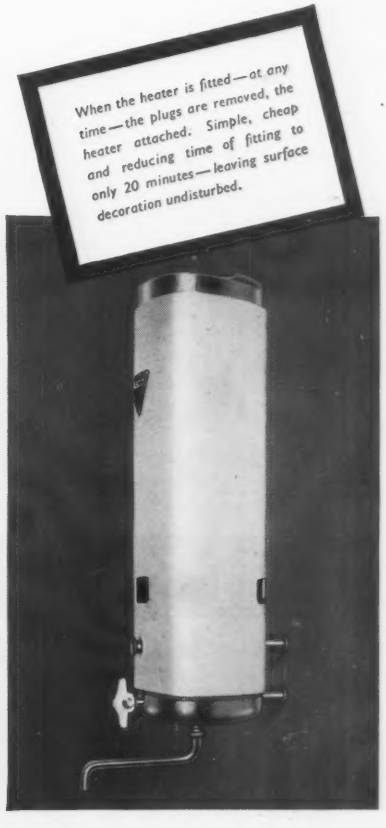
A.H.

44 HOUSING AUTHORITIES ADOPT ASCOT JIGGED WALL FITTING

Cheap Installation of Alternative Hot Water System

The new Ascot jigged wall fitting which cuts the cost of installing gas water heaters at the kitchen sink to a few shillings, has had a tremendous reception. 44 housing authorities have already adopted it, and upwards of 20,000 have been installed. The Ascot jigged wall fitting is chased in by the sink during erection of houses or flats, leaving neat capped ends just exposed. The cost is negligible. A tenant can then arrange at any time for an Ascot sink heater to be fitted, a job which takes only 20 minutes and leaves the surface decoration undisturbed. Housing authorities have adopted the Ascot jigged wall fitting because it provides at extremely low cost the means of obtaining an alternative supply of hot water at the kitchen sink. *Tenants particularly appreciate this convenient service which supplements the solid fuel heating system, especially in the summer, and at the same time saves money and fuel.* The jigged wall plate takes the Ascot 503 range of heaters and the Ascot RS 52/1 boiling water heater.





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ANTHOLOGY

PROUST ON RUSKIN

. . . 'He who wrapped about the old cathedrals a richer mantle of love and joy than can the sun when he adds his passing smile to their age-old beauty, cannot, if we truly understand him, have been wrong. It is, in the world of spirits, as in the physical universe, where water cannot rise higher than its source. The supreme beauties of literature correspond to something, and it may well be that, in art, enthusiasm is the criterion of truth. Even if we allow that Ruskin may sometimes have erred, as a critic, in the precise value that he attached to any given work, the beauty of his wrong judgment is often more attaching than that of the work judged, and corresponds to something which, though it may be different from that beauty, is no less precious.'

. . . 'Just how far that marvellous spirit faithfully reflected the universe, and in what appealing and alluring shapes falsehood may have crept, in spite of everything, into the very heart of his intellectual sincerity, is something that we shall probably never be able to discover, and into which, in any case, I cannot here enquire. Whatever the answer to that question may be, he was most certainly one of those geniuses of whom even those of us who were blessed by good fairies at our birth, have need, if we are to be initiated into the knowledge and love of a new realm of beauty. As coins bear the effigy of the ruling monarch, so are many of the words used by our contemporaries for the communication of their thoughts, marked with *his* imprint. Though he is no longer alive, he lights us still, like those dead stars whose radiance still reaches us; and it may be said of him, as he said of Turner: "It is through these eyes now closed for ever in the grave, that generations yet unborn will look on nature."'

. . . 'There is a more private and essential dilettantism than the dilettantism of behaviour (over which he did in fact triumph), and the real duel between his idolatry and his sincerity was fought out, not at this or that moment of his life, not on this or that page of his books, but at every minute, in those deep and secret regions of the mind, where though men are scarcely aware of its existence, their personality receives its most profound impressions. For it is in those hidden regions that the imagination receives the record of things seen, that intelligence stores up the influence of ideas, that memory is impressed by the impact of thought. By very reason of the choice which a man's essential nature is compelled to make of these things, it performs, incessantly, an act of self-assertion, and so is for ever determining the bent of its spiritual and moral life. It was in those regions, I feel, that Ruskin never wholly ceased to commit the sin of idolatry. At the very moment that he was preaching sincerity, he lacked it. It was not what he said that was insincere, but the manner of his saying. The doctrines he professed were moral, not æsthetic, yet he chose them for their beauty. And because he did not wish to present them formally as things of beauty, but as statements of truth, he was forced to lie about the reasons that had led him to adopt them. And once the start was made, he found himself involved in a compromise with conscience so continuous, that immoral doctrines sincerely professed would, perhaps, have been less dangerous to his spiritual integrity than moral doctrines enunciated with less than sincerity, because they had been dictated by æsthetic considerations which he refused to admit. Nor was the sin occasional. It went on all the time—in the way he explained a fact or appraised a work of art; even in the choice he made of words, so that, in the end, as a result of this never-ceasing indulgence, the whole attitude of his mind became falsified.'

Marcel Proust: a Selection from his Miscellaneous Writings, chosen and translated by Gerard Hopkins. (Allan Wingate.)

MARGINALIA

In Anthology

It has long been recognized that Proust was much influenced by Ruskin both in his thought and, more surprisingly, in his style. The passages quoted in Anthology this month show how keenly he was aware both of Ruskin's greatness and also his weakness.

Architects in this Issue

Architect of House near Apeldoorn, Holland (see pages 5-7). HEIN SALOMONSON, born in Amsterdam, 1910. When a little boy his father built a small country house with the village carpenter and from that moment was fascinated by building. After 1926 attended for three years the technical school at The Hague. Was a difficult pupil and before ending the course went to Vienna and joined Josef Hoffmann's architectural class. In Vienna was most impressed by Mozart's operas. In Hoffmann's school students were absolutely free and he learned most from some fellow students. After military service in Holland worked for a time in the office of Riss in Vienna and for a short while with Le Corbusier in Paris. Back in Holland started with some interior work and in 1939 built his first house in Blaricum. The building authorities of that village declared 'your design is no house, it is an automobile accident.' But with the house near Apeldoorn, later, met much nicer authorities, an ideal client and . . . an excellent photographer! Hobby is studying people, what they do and why, and popular architecture, barns, cow houses, etc. Married and has two daughters. His wife thinks she is his worst treated client.

1

Architect of Schools at Putney and Hammersmith (see pages 30-37). ERNO GOLDFINGER is an architect in private practice. Born 1902 in Budapest. Educated in Switzerland and France. Studied architecture in Auguste Perret's atelier, Paris. Holds French qualifi-

cations. Practised in France until 1934, then came to England. Did his first job over here in 1926 (Helena Rubenstein's) described as first 'modern' shop in London (was in Grafton Street, blitzed). Pre-war designed shops and houses. During the war designed exhibitions on varied subjects for Army, Admiralty Education and Air Force Education, etc. Has written two books, Penguin's *County of London Plan Explained* (with E. J. Carter), *British Furniture Today*. Is correspondent for *L'Architecture d'Aujourd'hui*. Has done research on sunlighting problems; first to build heliometer, 1930. Lives in house designed by himself in Hampstead. Married to Ursula Blackwell, the artist, and has three children. Collects surrealist pictures. Skis, always in France. Rides. But for architecture might have been a sculptor.

2, left to right, C. S. Mardall, F. R. S. Yorke, E. Rosenberg.

Architects of Leeds Central Colleges (see pages 49-53). YORKE, ROSENBERG and MARDALL (*the partnership*). The three of them knew each other before the war. Yorke and Rosenberg started working together in 1942. Partnership was not formed until 1944 (to save taxi fares visiting each other). Their first job was the Braithwaite house, first one built at Mill Hill, later bombed. Now have a staff of fifty with offices overlooking Hyde Park. Jobs allocated to the partners according to the amount of work each has on hand or connections with client. Now Yorke is concentrating on technical colleges, Rosenberg on hospitals, Mardall on schools. In any case all jobs are done jointly in initial stage. Yorke and Rosenberg have just completed a 30-day 30,000 mile tour of the US studying hospitals and schools. Opinion: hospitals, standards modest; schools, classrooms larger but standards not higher. FRANCIS R. S. YORKE, born in Stratford-on-Avon, 1906. Lives in a converted mill at Wootton in Oxfordshire. Spends his week-ends gardening and fishing there. Has a flat over the office which he uses weekdays. Is married and has twin girls. EUGENE ROSENBERG, born 1907 in Czechoslovakia. Trained in Prague and Paris (Gocar's, Corbusier's ateliers). Practised in Prague 1935 to 1939, then came to England. He is married. Lives in an 1815 house in St. John's Wood. Likes gardening in his 17 feet by 160 feet plot; wants to progress beyond roses and is very proud of his yellow poppies. Keen on cooking; collects pictures and sculpture (Ivon Hitchens, Moore, Sutherland). CYRIL SJÖSTRÖM MARDALL, born in Finland 1909. His father an architect there. Studied architecture at the Northern Polytechnic and the AA. Was naturalized in 1927. Has been in private practice since 1935. Specialized in prefabricated timber structures, as consultant to the Swedish Government House Exporting Committee, which before the war exported to England 200-300 houses. Consultant architect on timber houses to Air Ministry and Fifeshire CC. Married to June Park (architect with her own practice) and they live in house she designed in Highgate. Likes sailing; owns 22 sq. m. yacht in Finland. Hopes to visit his country house there this summer.

Strange Happenings at Oxford

The first building of the Victorian Revival has gone up, and appropriately enough in Oxford. It is seen on the right in the photograph below—the new extension of the Randolph Hotel in Beaumont Street.

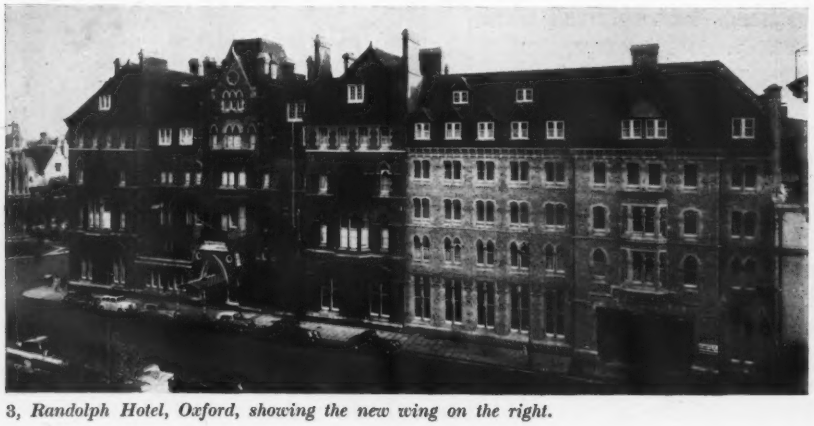
Before anyone flings up his hands in horror at a flagrant example of reaction rampant, let him consider the alternatives, remembering that Beaumont Street (which runs out of the picture to the right) consists mainly of small Regency houses, much lower than Wilkinson's original hotel. One alternative would, of course, have been an extension in an entirely contemporary manner, contrasting as much with the Regency houses in scale as with the Victorian hotel in style. This, no doubt, is what we all would have liked, ideally, to have seen; but this is not an ideal world, and we all know that the odds against our seeing any such thing were almost infinitely long. It was very much more likely that we would have seen yet another product of neo-Georgianism, advertising the moribundity of that school by just those modifications which it would have been necessary to introduce in the name of twentieth-century convenience. Apart from the garage entrance, the front of the new extension as it stands makes no concessions at all to the twentieth century (although the gables of the dormers are of a rather too cottagey type for 1864, the date of the original hotel). Such humility needs courage, and is surely a more positive virtue than that deference to conventional 'good taste' which would have presented us with a neo-Georgian solution of the problem. What is more, the thing comes off. Trust Houses (the owners), Oxford City Council (the planning authority), and the Oxford Preservation Trust (which acted in an advisory capacity) are to be congratulated on conspiring to do what in ninety-nine cases out of a hundred would be wrong, but here, as they recognized, is right.

The architects of the Randolph extension were G. Hassell, of Trust Houses architectural department, and J. Hopwood; C. Eatly was responsible for the drawings. The stone capitals were carved *in situ* by T. W. Tyrrell, 'who has been carving stone ever since he could hold a chisel and has worked at one time in every College in Oxford.'

And what does Oxford think of it? Here are the views of *The Cherwell:*

> 'Trust Houses deserve our commendation for their courageous action in building the new wing of the Randolph Hotel in the same style as the old Randolph which we all know and love. It is an open question at what point consistency in error, which is admirable, becomes persistency in error, which is deplorable. But this decision must have taken strong men of the heroic sort, sons of the old Teutonic knights, and we should respect them.'

From that one would say that Oxford taste had progressed some way beyond the point it stood at a couple of decades back, when a building by Butterfield at Merton was pitilessly emasculated in an attempt to make it look like a building by Bodley. Nevertheless, few Oxford buildings are really safe. At the very time the neo-Victorian addition to the Randolph Hotel was being built a battle (of which the outcome is still uncertain) was being waged for the



3, Randolph Hotel, Oxford, showing the new wing on the right.

4, Clarendon Hotel, Oxford.

T.416P Pendant. Type: diffused general with direct downward light. Finish: stove enamelled off-white. Perspex: ¼ in. internal reeds. Lamps: two 4-ft. tubular fluorescent. Control gear: with starter switches only.

T.411P Pendant. Type: diffused general. Finish: stove enamelled off-white. Perspex: ¼ in. external reeds. Lamps: two 4-ft. tubular fluorescent. Control gear: with starter switches only.

Tubalux fluorescent lighting fittings have the same quality of simplicity and elegance that is characteristic of our other well known ranges.

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Design has been based on the use of standard components with considerable interchangeability, and large scale production to fine limits ensures easy and accurate assembly.

Illustrated here are some examples of the Tubalux range. The complete range can be seen at the Lighting Centre in Knightsbridge, where you can also see our other ranges, Mondolite, Ultralux and Versalite.

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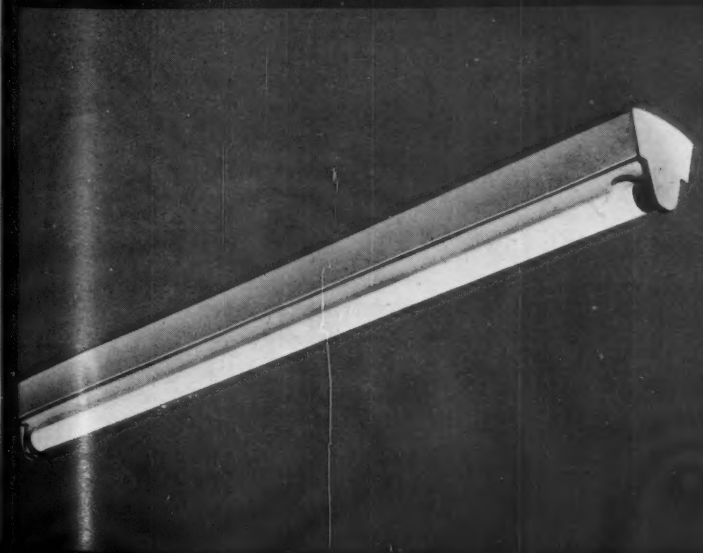
T.417 Ceiling. Type: open batten direct light. Finish: stove enamelled off-white. Control gear: with starter switch or Quickstart unit. Lamp: one 4-ft. tubular fluorescent.



T.418 Ceiling. Type: diffused general light. Finish: stove enamelled off-white Perspex: ¼ in. internal reeds. Lamp: one 4-ft. tubular fluorescent. Control gear: with starter switch or Quickstart unit.

The New Austin Car Assembly Building at Longbridge, Birmingham.

Architect:
C. Howard Crane, A.I.A.

General Contractors:
W. J. Whittall & Sons Ltd.

ANOTHER TRIUMPH FOR BISON!

7,500 sq. yards of BISON floors and roofs were used in the construction of the new Austin Car Assembly Building, Longbridge, Birmingham, the most modern plant of its kind in the world.

Another triumph for BISON, used in jobs of importance, large and small, throughout the British Isles.

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5, No. 28, Cornmarket Street, Oxford, as it was and 6, as it is now.

preservation of the Regency front of the Clarendon Hotel, just round the corner in The Cornmarket; ironically enough, it was the sale of the Clarendon Hotel by Trust Houses in 1939 that made the addition to the Randolph necessary. On the other hand, number 28 Cornmarket Street has recently been restored; the accompanying photographs show it as it was and as it is. At New College there is a move to give the chapel quadrangle a more medieval look by inserting stone mullions and transoms into the window openings, which were sashed in the eighteenth century. (A trial window which has been executed has the single transom running across the *lower* half of the window, with very odd effect.) That all these different things should be happening simultaneously to buildings in Oxford alone is amusing enough looked at one way: regarded as an indication of the utter failure of our times to formulate and adopt a consistent policy in matters relating to the preservation of historic buildings it represents a sorry state of affairs.

CORRESPONDENCE

John Chute and Hagley Hall

To the Editors,
THE ARCHITECTURAL REVIEW

DEAR SIRS,—I was interested by the reference to the Russian Ambassador, 'Count Czernichen,' in the article on John Chute and Hagley Hall in the March miscellany.

This is clearly Count Ivan Grigorievich Chernyshev (1726–97), Ambassador to the Court of St. James from 1768 to 1770. He was exceedingly rich, having been a favourite of the Empress Elizabeth Petrovna, and a great traveller: he was well known at the Court of Versailles, and paid more than one visit to Italy. The 'bad London air' made him ill. Chernyshev was an Honorary Member of the Imperial Academy of Sciences and President of the Russian Admiralty, holding the somewhat striking title of General Field-Marshal of the Fleet.

Prince Shcherbatov, an eighteenth century xenophobe, condemns Chernyshev for his love of Western culture; he was indeed renowned in his day as a connoisseur of art and good living. Reference to the numerous memoirs and letters cited in the 'Russian Biographical Dictionary's' account of his life should certainly throw further light on his patronage of art and architecture.

Yours, etc.,

Cambridge. DAVID M. LANG.

EXHIBITIONS

Paintings and Sculpture

There is remarkably little in this year's Royal Academy which it would be a surprise to find in any other west end art gallery—even official portraiture is on the way out, it seems—and those who go there in search of amusement soon find themselves reduced to looking for the things which merit serious consideration as works of art. Oddly enough, one of the few paintings that do belong to an old Royal Academy tradition is the work not of a member of the old guard but of the *avant-garde*—John Minton. I refer to *The Death of Nelson (after Daniel Maclise, RA)*. This must have been a laborious work, but I cannot feel that it is a successful one. Not that it is altogether Minton's fault, for may it not be that to paint historical events successfully the artist needs what might be termed a heroical view of history, whereas what the twentieth century gives him is an analytical one? The analytical approach should on the face of it be more favourable to portraiture; yet how rare a thing is the good portrait for all that! Still, the Academy does exhibit to us one very good portrait in Rodrigo Moynihan's *David Sylvester, Esq.*, while Ruskin Spear's *Portrait of Ernie* also deserves the admiration it has received. Among the other things which I find awarded a pencil tick in my catalogue are James Fitton's *Room with Figure*, Lord Methuen's *Dodington Park*, Carel Weight's *Homage to Dwight*, James Boswell's *Down for the Day*, Robin Darwin's *Sur la Terrasse*, Mary Smith's *Pineapple*, Robert Buhler's *Red Houses*, *Albert Bridge*, and two wind-swept water colours of the blockhouse and lighthouse on St. Ann's Head by Barbara Jones. That makes a dozen works mentioned here; it would probably be possible to select another three dozen of similar quality—which is no bad proportion as Royal Academy summer exhibitions go.

Eighteen months ago, writing of his exhibition at the Redfern in December 1950, I suggested that Victor Pasmore had been led into the field of abstract art by 'a passionate interest in paint as a thing in itself, and in colour as an attribute of paint, rather than a desire to construct an ideal world of pure form and pure colour.' His last exhibition at the same gallery appeared to contradict that view, for in several of the recent works there shown he had forsworn paint as a medium of expression altogether in favour of wood and plastic, and in one case of wood, plastic and aluminium. Whereas Pasmore's abstract paintings have an individuality of their own, his reliefs, it seems to me, are much like anyone else's, while the screen-like 'rectangular motif' hanging at right angles to the wall had so functional a look that one found oneself drawn, willy-nilly, into a consideration of the quality of the joinery. There must be many who can enjoy such a painting as the *Oval Motif in Green, White, Blue and Violet*, reproduced here, and yet hope that Pasmore's self-imposed exile from the world of actuality which he used to paint so beautifully may be near its end. As if to increase the poignancy of their regret at that exile, the Redfern had hung in the next room a score of paintings by Christopher Wood, an artist in whose work a manifest love of the best things in that world gave direction to constructive sense perhaps more powerful than that possessed by any living English painter. Downstairs an assemblage of collages and ceramics by eighteen artists, including Robert Adams, Peter Lanyon, Caroline Lucas, the Roberts Colquhoun and MacBryde, Barbara Moray, Edward Paolozzi, Ceri Richards and James Tower, afforded an impressive display of sensibility.

At the Hanover Gallery we have seen a baker's dozen of new paintings by Lucian Freud, including a large *Interior in Paddington*, lent by the Walker Art Gallery, and a small *Balcony Still Life*, lent by Sir Kenneth Clark (and reproduced overleaf). At Burlington House people are still to be heard asking one another whether such and such a painting can be 'really finished'; they would have no doubts on that point in front of anything of Freud's. The extraordinary thing is that the freshness of the artist's original vision should survive this minute rendering of detail; yet it nearly always does. If one were asked to define in a single word the quality common to all Freud's paintings in this exhibition, that word would, I think, be 'elegance'—which again is perhaps unexpected.

With the Freud show the Hanover held, upstairs, a first exhibition of paintings by Martin Froy, a young painter, recently out of the Slade, of whom it is safe to predict that we shall see and hear a great deal more of him. He has already achieved a personal style within the cubist tradition—and one which contains no obvious mannerisms which might

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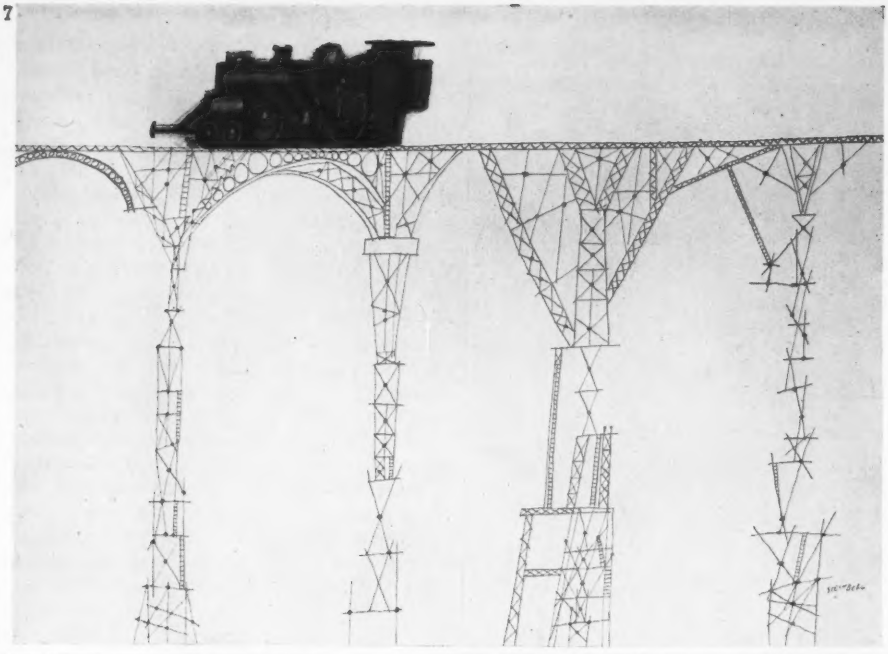

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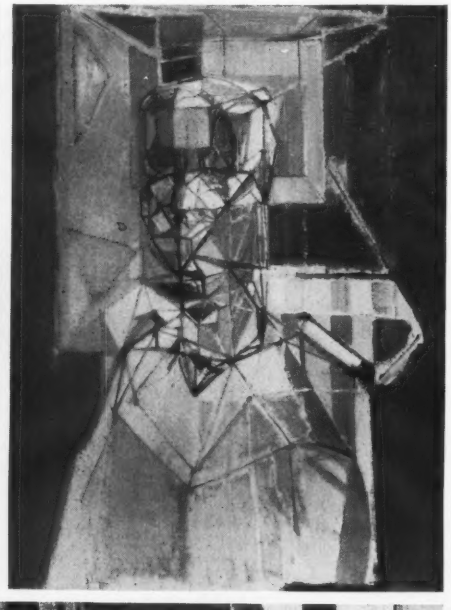

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run to seed too early. Colour plays too large a part in the construction of his pictures for photographs to do them justice, but one is reproduced here for the sake of the record.

It was a happy coincidence that gave us drawings by Sir Max Beerbohm at the Leicester Galleries and drawings by Saul Steinberg at the ICA in the same month. The world depicted in Max's caricatures is beginning to seem a long way from us now, but it is surely unfair to complain—as critics have been heard to complain—that they lack universality of appeal. Satire is essentially applied art—art applied to the foolishness and foibles of particular people in a particular age; even Pope needs footnotes. Steinberg's world, on the other hand, is perhaps too much with us. His interpretation of it is often uproariously funny—burlesque rather than satire, it would be fair to say—his dexterity as a draughtsman always prodigious.

Finally, Ben Nicholson's latest exhibition, at the Lefevre Gallery, must be mentioned, even though to say anything new and significant about that painter's single-minded devotion to all things pure in art is beyond the power of

Andrew Hammer.

TRADE & INDUSTRY

A Henry Hope Event

The austerity complex and outlook has become such a commonplace that a sudden break from that often grim tradition can be a bit heady.

Henry Hope & Sons have recently produced what they choose to call a 'catalogue' of their 'metal windows for drawing office use,' giving specifications, sections and useful information on design, fixing and glazing. For a really beautifully produced volume, printed in the inimitable Curwen Press traditions, of crown folio size, the term 'catalogue' seems a complete understatement. It is packed with photographs of buildings, many of them very well known, both at home and abroad, for which the company has supplied metal windows and other equipment, and with finely executed large detail drawings of metal sections and structural details. In fact, it is the kind of book one would like to possess for itself, irrespective of whether one is ever likely to use metal windows or not.

The Finch Chimney Throat Unit

No problem is of greater national importance than the efficiency with which we use our coal supplies. At present rates of utilization efficiency, coal production will continue to be insufficient to meet industrial and domestic requirements for the next ten years at least. As a nation, we cannot afford to neglect any means of making our coal supplies go further.

One small but important economy can be achieved by reducing the waste of heat up the domestic chimney by improved flue design. The Finch chimney throat unit is designed to meet the official recommendations in this respect contained in the 1949 Housing Manual. Made of pre-formed

[continued on page 66

7, Engine on Bridge *by Saul Steinberg* (*Institute of Contemporary Arts*); 8, Oval Motif in Green, White, Blue and Violet *by Victor Pasmore* (*Redfern*); 9, Head and Shoulders *by Martin Froy and* 10, Balcony Still Life *by Lucian Freud* (*Hanover*).

Staircase at Austin Motor Co. Ltd., Longbridge
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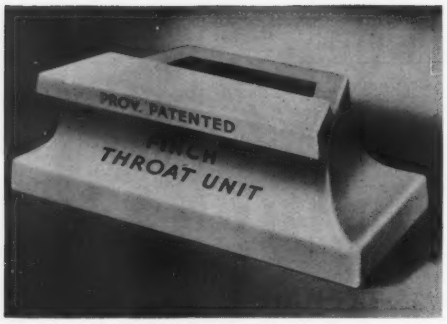


11, *Finch Chimney Throat Unit.*

continued from page 64]

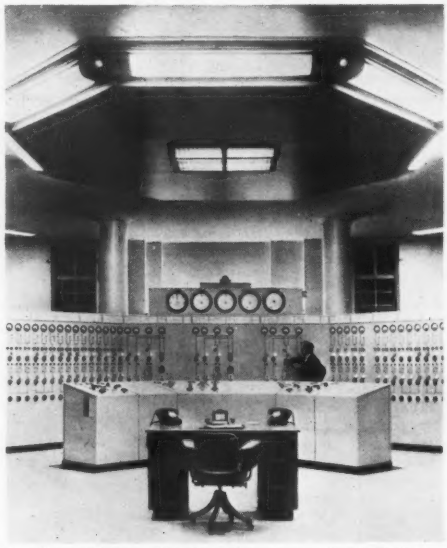
concrete and designed after extensive research and experiments, it is claimed that between 17 per cent and 20 per cent more heat is retained in the room, if fitted to an open fire, as compared with a normal unrestricted flue aperture. Being pre-cast, the dimensions are constant and predetermined and are not subject to improvisation on site. It insulates the back of the surround from excessive heat—a point which is of considerable importance, particularly now that far greater use is being made of continuous burning fires with their increased height of fuel bed. The smoke-shelf, which is increased in effect by the shape of the throat unit, coupled with the acceleration of rising flue gases which occurs, goes a long way to preventing down-draught even when the rest of the flue is inefficiently designed.

Full details of the experiments carried out, recommendations for flue construction and instructions for fixing the unit are available from the Research and Development Division of the Finch Organization, Belvedere Works, Barkingside, Essex, or at their showrooms, 679-687, Eastern Avenue, Ilford, Essex.

Mazda Control Room Lighting

In spite of the rapid and important technical advances made in electric lighting during the last ten years, it is still relatively uncommon to find lighting schemes which are essays in what might be termed tailor-made illumination, rather than just assemblies of fittings. Of course, assemblies of fittings, and particularly of fluorescent or cold-cathode units, are often the right answer, but point is given to the first comment by the installation planned by the British Thomson-Houston Company for the control room of the new Grangemouth Oil Refinery.

The main illumination, which has to light banks of dials and indicator panels, consists of an



12, *Control Room Lighting, Grangemouth Oil Refinery.*

octagonal false ceiling, 9 inches deep, round which eight lighting units each fitted with two 80-watt fluorescent tubes are arranged. The units which project only 8 inches from the ceiling are thus largely concealed when viewed from the opposite side of the room. At the eight corners, specially designed cornice units conceal the gear and the ends of the lamps, access being provided through hinged windows.

In the centre, a square louvered recess contains four 40-watt fluorescent lamps, providing extra downward lighting and in each corner, two five-foot reflector fittings, mounted end to end above louvres, are set diagonally across the corners. In addition, two translucent cornice units each with one 80-watt fluorescent lamp is mounted on one of the end walls, 7 feet from floor level, to ensure complete coverage of the relay panels.

Emergency lighting is provided in the octagonal fitment by eight 60-watt Silverlight lamps at each corner. The total of thirty-four 80-watt fluorescent lamps and eight of 40 watts provides an average illumination of 25 lumens per square foot in the central area, and 12 to 15 lumens per square foot on the vertical surfaces of the control panels.

Notes

Information on the Use of Lead Sheet and Pipe. The Lead Technical Information Bureau informs us that in addition to their normal service for dealing with enquiries about the use of these materials, they have now instituted a service for giving advice on the site, since discussion and demonstration can often be more valuable than lengthy correspondence. Arrangements for the visit of a technical officer can be made through the Lead Industries Development Council, Eagle House, Jermyn Street, London, S.W.1.

Wm. Mallinson & Sons Reorganize. This well-known timber company announce that they have

[continued on page 68

Built in 16 months—using the perfect low-cost flooring

THE NEW OFFICES *of the British Electricity Authority at Southwark. 14,000 square yards of Accotile—"the low-cost floor with the luxury look"—have been laid throughout the building.*
Architects: *W. Curtis Green, R.A., Son and Lloyd.*
Builders: *Sir Robert McAlpine and Sons Ltd.*

The British Electricity Authority's new offices at Southwark (now nearing completion) constitute one of the largest buildings erected in London since the war. The building was completed in approximately 16 months—and the ease with which the Accotile flooring was laid contributed materially to this rate of progress.

THE FLOOR CHOSEN for the new offices of the British Electricity Authority was Accotile (thermoplastic tile flooring made by Armstrong Cork Company Ltd.), because it fulfilled requirements of design and durability—yet cost less to install than many older types of flooring. Fourteen thousand square yards of Accotile were laid in rooms, corridors, lobbies, waiting rooms—and on stairs.

There are good reasons why so many buildings are now floored with Accotile.

* *It is made in a wide range of designs, and no less than 21 attractive colours.*
* *There are two sizes of tile (12″ x 12″ and 9″ x 9″).*
* *It is hard-wearing.*
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* *Accotile is handled by 42 approved contractors throughout the country.*
* *The use of Accotile Coved Skirting gives an added finish.*

In addition to Accotile, a substantial quantity of Armstrong's Cork Tiles was laid. In a busy office building of this kind, the warmth, comfort and quietening properties of cork are especially valuable. Armstrong Cork Tiles, which can also be used for dados, are easily and inexpensively laid, and give that air of luxury that is so necessary to modern design.

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"The low-cost floor with the luxury look"

* British Registered Trade Mark 663698 Armstrong Cork Company Ltd., Registered Users.

continued from page 66]
closed their works at Kingsland Road, E.2, operating under the name of the Aeronautical and Panel Plywood Co., and are now in production at the factory at Crayford of their other associated manufacturing company, the former Tucker Armoured Plywood Company. The combined unit now functions under the title of William Mallinson & Sons (Manufacturing) Ltd., which now operates a straight-line flow of production of the most modern type. The sales side will in future be carried on by the parent company, William Mallinson & Sons, 130-150, Hackney Road, London, E.2.

Booklets Received

Examples of Structural Steel Design (*Part* 3). The British Constructional Steelwork Association have just issued the third part of their recommendations based on British Standard 449:1948 on this subject. Part 2 having dealt with the design of the stanchions, this Part considers the design of steel bases which will adequately resist the overturning moments, in addition to the vertical and horizontal forces. The booklet, which is written by V. H. Lawton for the BCSA, is available at their offices, Artillery House, Westminster, S.W.1.

H. McG. Dunnett

CONTRACTORS etc

School at Putney. *Quantity surveyors:* Davis, Belfield and Everest. *Clerk of the Works:* R. G. Bartholomew. *General contractors:* H. T. Oliver & Sons. *Sub-contractors: Precast structure and window cills:* Atlas Stone Co. *Reinforcement:* British Reinforced Concrete Engineering Co. *Precast floors:* Rapid Floor Co. *Asphalte:* Ragusa Asphalte Paving Co. *Accotile and cork floors:* Armstrong Cork Co. *Flooring* (*assembly hall*): The Granwood Flooring Co. *Terrazzo paving:* Marriott & Price. *Roofing:* The Ruberoid Co. *Windows and pressed steel door frames:* Williams & Williams Ltd. *Glass domes:* James Clark & Eaton Ltd. *Glass dome* (*square*): T. & W. Ide & Co. *Skylight:* Superducts Ltd. *Ventilation louvres:* H. W. Cooper & Co. *Odd windows:* H. & C. Davis & Co. *Blinds:* Deans Blinds (Putney) Ltd. *Heating:* H. W. Dutton & Co. *Electrical installations:* Electrical Contracting Co. *Roller shutter:* Haskins. *Cloakroom gates and fittings:* Amalcraft Ltd. *Ironmongery:* J. D. Beardmore & Co. *Steel door frame:* Cook & Co. *External gates:* R. Smith (Horley) Ltd. *Suppliers: Bricks:* Broad & Co. *Boiler house roof:* Concrete Ltd. *Linoleum:* Catesbys Ltd. *Plywood ceilings:* Venesta Ltd. *Sanitary fittings:* Adamsez Ltd. *Cottage boiler-fire:* Allied Ironfounders Ltd. *Joinery:* Barber & Blanchard Ltd. *Door mats:* Fletcher Hardware Ltd.

School at Hammersmith. *General contractors:* C. F. Kearley Ltd. *Sub-contractors: Structure:* Atlas Stone Co. *Reinforcement:* Twisteel Reinforcement Ltd. *Precast flooring:* The Rapid Floor Co. *Roofing:* The Ruberoid Co. *Asphalte:* Ragusa Asphalte Paving Co. *Accotiles and cork floors:* Armstrong Cork Co. *Flooring* (*assembly hall*): Granwood Flooring Co. *Terrazzo paving:* Jaconello Ltd. *Windows and patent glazing and pressed steel door frames:* Williams & Williams Ltd. *Glass domes:* James Clark & Eaton Ltd. *Skylight:* Superducts Ltd. *Ventilation louvres:* H. W. Cooper & Co. *Sunblinds:* Deans Blinds (Putney) Ltd. *Heating:* H. W. Dutton & Co. *Electrical installation:* Edmundsons Electric Co. *Painters:* South London Decorators. *Roller shutter:* Haskins. *Gates and partitions:* Amalcraft Ltd. *Ironmongery:* J. D. Beardmore Ltd. *Steel angle* (*covered way*): Power's & Deane Ransome's Ltd. *Garden:* J. Burley & Sons. *Lettering:* The Lettering Centre. *Suppliers: Boiler house roof:* Concrete Ltd. *Bricks:* London Brick Co. *Linoleum:* Catesbys Ltd. *Plywood ceilings* (*assembly hall*): Venesta Ltd. *Sanitary fittings:* Adamsez Ltd. *Sanitary fittings* (*supplementary*): John Bolding & Sons. *Cottage boiler-fire:* Allied Ironfounders Ltd. *Joinery:* Barber & Blanchard Ltd. *Sump pump:* W. H. Wilcox & Co. *Door mats:* Fletcher Hardware Ltd.

House in Welwyn Garden City. *General contractors:* Yeomans & Partners Ltd. *Sub-contractors: Foundations and dampcourses, bituminous felt damp-proof membrane:* The Ruberoid Co. *Bricks, yellow second stock bricks:* London Brick Co. *Slate:* Bow Slate & Enamel Co. *Tiles:* J. C. Edwards (Ruabon) Ltd. 30 *SWG copper sheeted fibre board on prefabricated panels and trusses:* Matthews (Builders) Ltd. *Roofing felt:* The Ruberoid Co. *White plyglass* (*entrance hall*): James Clark & Eaton Ltd. *Chipboard flooring blocks* ('*Weyroc*') supplied by Jicwood Ltd., laid by Aladdin Services (London) Ltd. *Flooring adhesive:* Dunlop Rubber Co. *Central heating copper tubing:* I.C.I. Ltd. *Mixing valve:* Gummers Ltd. *Grates:* B. Finch & Co. *Earleymil Junior No.* 0 *magazine boiler:* Earleymil Ltd. *Electric wiring:* Eastern Electricity Board. *Electric light fixtures:* Troughton & Young Ltd. *Sanitary fittings:* J. Bolding & Sons. *Door furniture:* James Gibbons Ltd. *Carda window:* Holcon Ltd. *Sliding window gear* ('*Coburn*'): British Trolley Track Ltd. *Window furniture:* James Gibbons Ltd. *Plaster:* Byron & Panter Ltd. *Metalwork:* Mountford Bros. Ltd.; Church & Co. (Fittings) Ltd. *Joinery:* Fuller Hills Ltd. *Tiling:* Summers & Co. *Wallpapers:* Primavera; Arthur Sanderson & Sons; Cole & Son (Wallpapers) Ltd. *Furniture:* G. Bocking; Ernest Race Ltd.; Abbess Furniture Products. *Water-softening plant:* Permutit Ltd.

Civic Design School, Liverpool University. *General contractors:* Wm. Tomkinson & Sons. *Sub-contractors: Dampcourse:* William Briggs & Sons. *Reinforced concrete* (*pre-cast floors*): Truscon Ltd. *Artificial stone:* Pearson Bros. & Campbell Ltd.

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Structural steel: Redpath Brown & Co. *Hardwood windows:* William Thornton & Sons. *Glass:* Hill Lambert & Co. *Patent glazing:* Williams & Williams Ltd. *Tiles and terrazzo:* Conways Ltd. *Patent flooring:* Granwood Flooring Co. *Central heating:* Granwood Flooring Co. (heating department). *Electrical wiring:* Merseyside & North Wales Electricity Board. *Electric light fixtures:* Merchant Adventurers Ltd. *Plumbing:* Merseyside Plumbing Co. *Sanitary fittings:* Musgraves (Liverpool) Ltd. *Stairtreads, tiling:* Conways (Tiles & Terrazzo) Ltd. *Door furniture:* Chubb & Sons Lock & Safe Co. *Casements:* Wm. Thornton & Sons. *Window furniture:* Chubb & Sons Lock & Safe Co. *Bells:* The Merseyside & North Wales Electricity Board. *Iron staircase:* Quiggin Bros. Ltd. *Sunblinds:* J. Avery & Co. *Decorative plaster:* Decorators Ltd. *Metalwork:* J. R. Pearson (Birmingham) Ltd. *Joinery:* Wm. Tomkinson & Sons. *Wallpapers:* Cole & Sons (Wallpapers); Arthur Sanderson & Sons. *Furniture:* Scottish Furniture Manufacturers Ltd.; Gordon Russell Ltd.; Ernest Race Ltd. *Garden furniture:* Race Furniture Ltd. *Shrubs and trees:* Bees Ltd. *Clocks:* Merseyside & North Wales Electricity Board.

Primary School at Deptford, London. *General contractors:* Thomas & Edge Ltd. *Sub-contractors: Dampcourses:* Tretol Ltd.; 'Excel' Asphalte Co. *Concrete blocks:* Hills (W. Bromwich) Ltd.; Orlit Ltd. (schoolkeeper's house). *Reinforced concrete, in-situ:* Thomas & Edge Ltd.; *pre-cast:* Hills (W. Bromwich) Ltd. *Bricks:* Oxshott Brick Works Ltd.; Uxbridge Flint Brick Co. *Artificial stone:* W. C. Richardson. *Structural steel, window casements and furniture:* Hills (W. Bromwich) Ltd. *Tiles:* Wiggins-Sankey Ltd.; Marriott & Price Ltd. *Roofing felt:* 'Excel' Asphalte Co. *Partitions:* Refractulation Ltd. *Glass:* Faulkner Greene & Co. *Patent flooring:* Granwood Flooring Co.; '*Accotile*,' Neuchatel Asphalte Co.; New Floor Installations Ltd. *Waterproofing materials:* Bitulac Ltd. *Central heating:* Norris Warming Co. *Gas fixtures:* Newton Chambers & Co.; Vulcan Ltd. *Gas-fittings:* South-Eastern Gas Board. *Boilers:* Hartley & Sugden Ltd. *Electric wiring:* Electrical Contracting Co. *Electric light fixtures:* Hume Atkins & Co.; Ascog Ltd.; Troughton & Young Ltd.; Hailwood & Ackroyd Ltd. *Electric heating:* H. Frost & Co. *Ventilation:* Vent-Axia Ltd. *Plumbing:* Thomas & Edge Ltd. *Sanitary fittings:* Davis Bennet & Co.; B. Finch & Co. (schoolkeeper's house). *Door furniture:* Comyn Ching & Co.; Hills (W. Bromwich) Ltd. *Rolling shutters:* Dennison Kett & Co. *Plaster:* F. Bates & Son. *Metalwork:* Light Steelwork Ltd.; Audens Ltd.; Haywards Ltd. *Joinery:* Thomas & Edge Ltd. *Doors:* John Sadd & Sons; Sharp Bros. & Knight (schoolkeeper's house). *Tiling:* Wiggins-Sankey Ltd. *Textiles:* Gerald Holtom. *Wallpapers:* John Line & Sons. *Furniture:* Story & Co. *Tubular furniture:* H. C. Shepherd & Co. *Cloakroom fittings:* B. Finch & Co. *Clocks:* Gent & Co. *Signs:* W. H. Sharpington.

Factory Extension at Longbridge, Birmingham. *General contractors:* W. J. Whittall & Sons. *Sub-contractors for the structure: Asphalt:* Highway Construction Ltd. *Reinforced concrete:* Concrete Ltd. *Bricks:* Proctor & Lavender Ltd. *Stone:* South Western Stone Co. *Structural steel, iron staircases:* Redpath Brown & Co. *Fireproof construction, folding gates:* Potter Rax Ltd. *Special roofings:* Robertson Building Service. *Partitions:* Roneo Ltd. *Patent glazing, casements, metalwork:* Williams & Williams Ltd. *Patent flooring:* Empire Stone Co. *Sub-contractors for the equipment: Central heating:* Brightside Foundry Eng. Co. *Electric wiring:* Lee Beasley & Co. *Stairtreads:* Ferodo Ltd. *Fireproof doors:* Sheldon Ltd. *Sub-contractors for decorations and specialities: Plaster, joinery, water supply:* General Construction Co. *Metalwork:* Birmingham Guild Ltd. *Terrazzo:* Zannelli (London) Ltd. *Shopfitting work:* Frederick Sage & Co. *Locker cloakroom fittings:* Fisher & Ludlow Ltd.

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